



AR45





SUMMARY	1977	1976
Financial:		
Earnings (loss) before extraordinary item	\$ (29,223,000)	\$ 14,703,000
— per convertible share	\$(6.23)	\$2.96
Earnings (loss) for the year	\$ (8,985,000)	\$ 14,703,000
— per convertible share	\$(2.15)	\$2.96
Dividends per convertible share	50¢	\$1.00
Working capital	\$ 252,411,000	\$ 152,083,000
Metal sales prices (per pound — U.S. currency):		
Electrolytic nickel (at December 31)	\$2.08	\$2.41
Ferronickel (at December 31)	\$2.00	\$2.36
Copper (per London Metal Exchange)		
— January 1	61¢	53¢
— High (1977 — March; 1976 — July)	70¢	77¢
— December 31	57¢	61¢
Metal sales (pounds):		
Nickel in all forms	78,281,000	143,396,000
Copper	155,201,000	139,287,000

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ANNUAL MEETING OF SHAREHOLDERS

TUESDAY, APRIL 11, 1978

10:00 A.M. (TORONTO TIME)

COMMERCE HALL

CONCOURSE LEVEL, COMMERCE COURT

TORONTO, ONTARIO

FRONT COVER

NICKEL CROWNS — Enlarged photograph of a new and improved form of electrolytic nickel recently introduced by Falconbridge for use in the electroplating industry.

FALCONBRIDGE NICKEL MINES LIMITED



Offices

Corporate Offices — P.O. Box 40,
Commerce Court West, Toronto,
Ontario, Canada M5L 1B4
Telephone (416) 863-7000.
Telex 065-24211. Cables "Falconbrij"

Sudbury Operations, Main Office —
Falconbridge, Ontario P0M 1S0

Vancouver Office —
1112 West Pender Street,
Vancouver, B.C. V6E 2S1

Among Wholly-Owned Subsidiaries

Falconbridge Nikkelverk Aktieselskap

Kristiansand S., Norway
G. Lous — Chairman of the Board
E. Wigstol — General Manager

Wesfrob Mines Limited

1112 West Pender Street,
Vancouver, B.C. V6E 2S1
P. L. Munro — President
C. L. Stafford — Mine Manager,
Tasu, Queen Charlotte Islands, B.C.

Canadian Nickel Division

A. G. Slade — Vice-President
and Chief Officer

Ontario

Sudbury Operations —

Mines — Falconbridge, East,*
Strathcona, Fecunis,* North,*
Onaping,* Lockerby

Mine Under Development — Fraser

Concentrators — Falconbridge,
Strathcona, Fecunis*

Smelter — Falconbridge

(* Temporarily closed; on standby)

Marketing Subsidiaries

Falconbridge International Limited

Gibbons Building, Queen Street
Hamilton 5-31, Bermuda
Telephone 2-4700
Telex 3479

Falconbridge Canada

P.O. Box 40, Commerce Court West
Toronto, Ontario, Canada M5L 1B4
Telephone (416) 863-7000
Telex 065-24211

Falconbridge U.S. Incorporated

Seven Parkway Center
Suite 450
Borough of Greentree
Pittsburgh, Pennsylvania 15220
U.S.A.
Telephone (412) 922-0100
Telex 866507

Falconbridge Europe, S.A.

150 Chaussée de la Hulpe
1170 Brussels, Belgium
Telephone (02) 673-99-50
Telex 46-23280

Products

Products of Falconbridge Nickel Mines
Limited and affiliated companies include:
Nickel, copper, cobalt, gold, silver,
platinum, palladium, iridium, rhodium,
ruthenium, selenium, lead, iron ore, zinc,
cadmium, nepheline syenite, silica,
feldspar, mica, limestone aggregates,
liquid sulphur dioxide, carbon and high-
alloy steel castings, and other products
for consumer and industrial use.

Research Laboratories

Falconbridge Metallurgical Laboratories,
Richmond Hill, Ontario; Kristiansand S.,
Norway.

Exploration Offices

Toronto and Sudbury, Ontario; Quebec
City, Quebec; Vancouver, B.C.;
Winnipeg, Manitoba; St. John's,
Newfoundland; Santo Domingo,
Dominican Republic; Oslo, Norway;
Johannesburg, South Africa; Windhoek,
South West Africa; Manila, Philippines.

Solicitors

Tilley, Carson & Findlay, Toronto

Auditors

Clarkson, Gordon & Co., Toronto

Transfer Agents and Registrars

Crown Trust Company, Toronto,
Montreal, Vancouver and Calgary

Registrar and Transfer Company,

New York and Jersey City, U.S.A.

Stock Exchanges

The shares of Falconbridge Nickel Mines
Limited are listed on the Toronto,
Montreal and Vancouver stock
exchanges.

The shares are also traded Over-the-
Counter in the United States. The
NASDAQ symbol is FALCF.



1928-1978

*Falconbridge Nickel Mines Limited was
incorporated under the laws of Ontario on
August 28, 1928. The commemorative design
shown here is being used in advertising and
publications in 1978 to mark the Company's
50th anniversary.*

DIRECTOR EMERITUS

C. F. H. CARSON, Q.C.

BOARD OF DIRECTORS

† F. H. BRANDI,
Former Chairman, Dillon, Read & Co. Inc.

JOHN B. CONNALLY,
Senior Partner, law firm of Vinson & Elkins

* MARSH A. COOPER,
President and Managing Director

† O. D. COWAN,
Chairman, General Impact
Extrusions Ltd.

W. G. DAHL,
Group Vice-President

*† NELSON M. DAVIS,
Chairman of the Board,
N. M. Davis Corporation Limited

R. B. FULTON,
Chairman of the Board,
President and Chief Executive Officer,
McIntyre Mines Limited

E. L. HEALY,
President and Chief Executive Officer,
Mine-Met Consultants
of Canada Limited

ROBERT HEWITT,
Chairman and Chief Executive Officer,
Hewitt Equipment Limited

* W. F. JAMES,
Partner in James & Buffam,
Consulting Geologists

* H. B. KECK,
President, The Superior Oil Company

G. P. MITCHELL,
Group Vice-President

J. E. REID,
Senior Vice-President,
The Superior Oil Company

W. I. SPENCER,
President, Citibank, N.A.
and President, Citicorp

**OFFICERS AND
CORPORATE MANAGEMENT**

H. B. KECK,
Chairman of the Board

MARSH A. COOPER,
President and Managing Director

W. G. DAHL,
Group Vice-President

G. P. MITCHELL,
Group Vice-President

H. T. BERRY,
Vice-President Metallurgy and Research

I. H. KEITH,
Vice-President Ferronickel Division

J. D. KRANE,
Vice-President Corporate Affairs and Secretary

J. L. MATTHEWS, Q.C.
General Counsel and Assistant Secretary

H. L. HICKEY,
Director Public Relations

J. M. DONOVAN,
Controller

N. H. WITHERELL,
Treasurer

A. R. PASIEKA,
Director Mining Engineering and Research

PETER ZAHARUK,
Director General Engineering



* Member of the Executive Committee

† Member of the Audit Committee

P.O. BOX 40, COMMERCE COURT WEST, TORONTO, ONTARIO, CANADA M5L 1B4



REPORT OF THE DIRECTORS TO THE SHAREHOLDERS

Highlights of 1977

Depressed market conditions continued throughout 1977 and were the major factor in the consolidated loss resulting from the year's operations. A continuing weak demand for nickel, compounded by new production from other countries, fierce competition and falling prices led to abnormally high producer inventory levels and extensive production cutbacks within the industry.

The Sudbury Operations of the Company were shut down for more than five weeks and reductions in the work force were effected during the second half of the year. Despite these measures, inventories continued to grow and, by year-end, Falconbridge inventories of finished nickel in all forms amounted to 78,262,000 pounds compared with inventory of 18,277,000 pounds at the end of 1976.

Early in December, the Company announced that the continuing weakness in nickel markets and increasing inventories had necessitated a further cutback in production planned for 1978 at Sudbury Operations. This is to be achieved by a seven-week summer vacation shutdown and an additional reduction in personnel.

Decreased production at Sudbury has also affected production plans at the Company's refinery in Norway. Beginning in January, 1978, the working hours of all employees were reduced by 20 per cent with a corresponding reduction in pay. A similar program was introduced at the Company's Metallurgical Laboratories at Richmond Hill, Ontario, and a staff reduction has been effected in the corporate offices in Toronto.

The impact of depressed market conditions has also been felt in the Dominican Republic where the Company's subsidiary, a major producer of ferronickel for world markets, announced in January, 1978, a cutback in production and the layoff of approximately 25 per cent of its 2,100 employees.

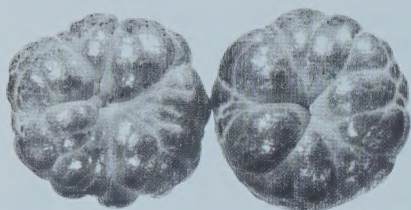
Work on the Smelter Environmental Improvement Program at Falconbridge, Ontario, continued on schedule, toward its planned start-up in April, 1978. By year-end the roaster-electric smelter portion of the project was 92 per cent complete and the adjacent acid plant portion was 85 per cent complete. Expenditures on this project in 1977 were \$34,226,000, bringing total expenditures to date to \$65,977,000. The current cost estimate of the completed project is \$83,000,000.

In order to finance its high inventory and the heavy capital expenditures on the Smelter Environmental Improvement Program, and to provide additional working capital, the Company in 1977 issued 3,000,000 preference shares at par value of \$25 each, and borrowed \$75,900,000 through a five-year bank loan, providing a total of \$150,900,000 cash inflow from these sources.

Because of a deteriorating market and intense price competition, posted nickel prices were suspended by major producers in mid-1977. Published prices were reinstated by the Company late in the year.

Copper prices reflected the depressed economic conditions which prevailed in 1977. Consequently, average 1977 copper prices expressed in United States currency were lower than those in 1976. Refined copper inventory held by producers and various commodity exchanges increased in 1977 and caused a number of North American copper mining companies to curtail production. Current refined metal inventories should moderate any upward price movement; no major increase in the price of copper can be expected in 1978.

The public offer made by Canadian Superior Oil Ltd. to purchase any or all of the capital stock of Alminex Limited at a price of 1/13 of a common share of Canadian Superior and \$7.00 for each share of Alminex was accepted by the Company. On December 30, 1977, the Company received 294,143 shares of Canadian Superior (with a market value of \$17,465,000) and \$26,767,000 for its 3,823,871 shares of Alminex.



magnitude, Falconbridge Copper Limited contributed \$2,913,000 in 1977, up by \$1,276,000 from 1976; Falconbridge Dominicana, C. por A., \$2,788,000, down by \$6,046,000 from 1976; and Indusmin Limited, \$1,251,000, down by \$768,000. The consolidated loss in 1977 includes \$336,000 of the loss at Oamites Mining Company (Proprietary) Limited and the \$2,211,000 loss at Wesfrob Mines Limited. In 1976 Oamites contributed \$128,000 to consolidated earnings but Wesfrob's 1976 loss of \$337,000 reduced that year's consolidated earnings.

Falconbridge's share of the earnings of other controlled companies recorded on an equity basis, together with dividends from other investments in 1977, amounted to \$5,789,000 — up from \$4,757,000 in 1976. Alminex Limited contributed \$3,776,000, up by \$352,000 from 1976 and United Keno Hill Mines Limited contributed \$1,168,000, up by \$327,000. Dividends of \$768,000 received from investments are \$196,000 higher than those received in the previous year.

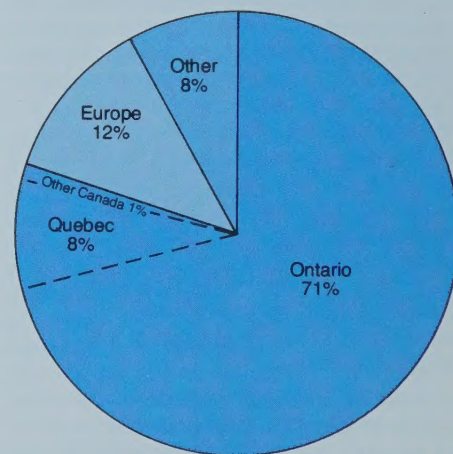
Unallocated corporate expenditure for the year, net of dividend income, amounted to \$16,303,000, up \$10,586,000 from 1976, largely as a result of non-recurring items.

Further details of the financial results of individual operations and companies appear in Statement 5, and on pages 32 to 40.

Working Capital

Consolidated working capital increased by \$100,328,000 during 1977 to \$252,411,000 at the year-end. The major sources of working capital were the issue of preference shares in the amount of \$75,000,000 and bank loans of \$79,418,000. Operations generated \$12,711,000, while cash received from the sale of investments amounted to \$28,135,000 and the disposal of fixed assets yielded \$2,853,000. Working capital was decreased by expenditures on property, plant and equipment and on development and preproduction activities in the amount of \$81,701,000; by reductions in long-term debt of \$11,739,000, and by total dividends of \$4,174,000 paid to holders of the preference shares and the convertible shares of the Company.

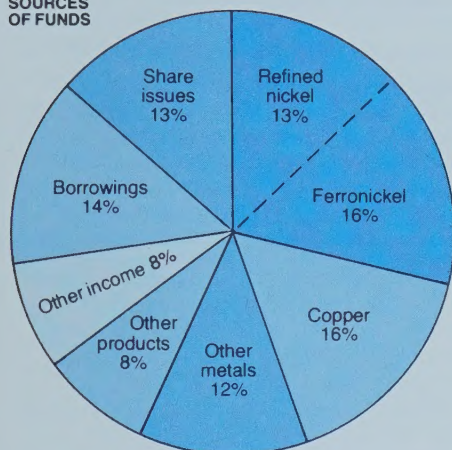
**CONSOLIDATED
CAPITAL
EXPENDITURES
BY GEOGRAPHICAL AREA
1977**



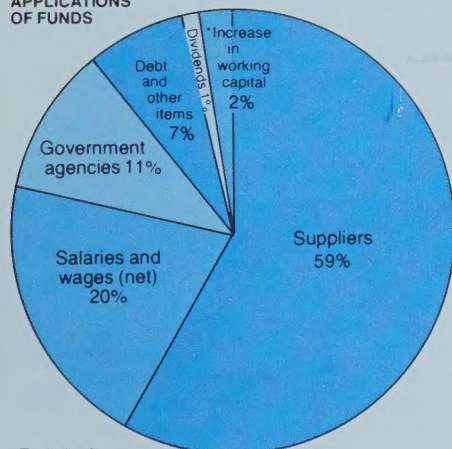
The total funds applied in 1977 approximated \$585,000,000 of which \$337,000,000, 58 per cent, went to suppliers for operating supplies and fixed assets; and \$120,000,000, 20 per cent, represented take-home pay for employees. Taxes of various kinds to all levels of governments amounted to \$63,000,000, 11 per cent of total funds applied. Dividends paid to shareholders amounted to 1 per cent of funds applied. While approximately 72 per cent of sales revenues were earned overseas, only 33 per cent of all funds utilized went to non-Canadian sources.

CONSOLIDATED SOURCES AND APPLICATIONS OF WORKING CAPITAL (FUNDS) DURING 1977

SOURCES OF FUNDS



APPLICATIONS OF FUNDS



*Excludes funds applied to increase metals inventory

Return on Net Assets

The return on consolidated total assets less current liabilities was 1.0 per cent in 1975 and 3.5 per cent in 1976. In 1977, the consolidated loss resulted in a negative return on investment. A reasonable return on investment will not be achieved until there is a significant increase in the demand for metals and stronger prices.

Marketing Summary

Sales of Falconbridge nickel in all forms during 1977, including nickel refined and delivered on a commission basis, totalled 78,281,000 pounds compared with 143,396,000 pounds in 1976. The decrease resulted largely from customers decreasing their inventories, a continuation of the prolonged economic recession, particularly in Europe, and the softening in segments of the stainless steel market worldwide.

The recovery of the western world capital investment sector, on which a strong nickel market depends, did not materialize as expected. Nickel markets in 1977 continued to reflect intense competition among nickel producers as they attempted to increase or maintain their market share. In 1977, western world nickel mining capacity was about 1,600,000,000 pounds. Producer shipments in the non-Communist world

were estimated at about 900,000,000 pounds in 1977, compared with 1,160,000,000 pounds in 1976. Most nickel companies in the western world announced substantial production curtailments to achieve a balance between production and shipments.

The posted prices for electrolytic nickel and ferronickel were rescinded during 1977 due to severe competition among producers. However, towards year-end, Falconbridge announced a firm price of U.S. \$2.08 per pound of electrolytic nickel, delivered at customer works, effective for the remainder of the year and the first quarter of 1978. Firm prices for other nickel product forms were also announced.

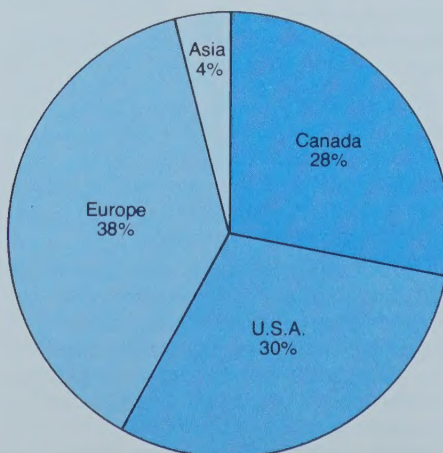
The London Metal Exchange "spot" price for copper wirebars declined in 1977 to an average level of U.S. 59.5 cents per pound, compared with the equivalent 1976 price of U.S. 64 cents per pound. The price moved erratically throughout the year, reaching a high of U.S. 70 cents per pound in March and falling to a low of U.S. 51 cents per pound in August. Subsequently, prices improved somewhat and closed the year at U.S. 58 cents per pound. The annual average price has remained at or near the U.S. 60 cents per pound level since 1975.

Sales of metal products from the Integrated Nickel Operations and from the Ferronickel Operations were as follows:

	1977	1976
	(pounds)	
Refined nickel in all forms*	34,887,000	83,615,000
Ferronickel	43,394,000	59,781,000
Copper*	44,949,000	36,081,000
Cobalt	1,494,000	2,079,000

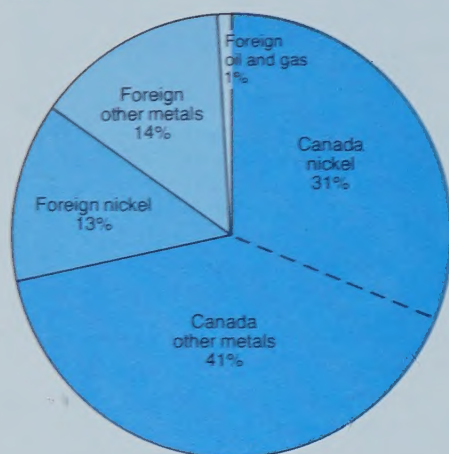
*Includes nickel and copper refined and sold on a commission basis.

CONSOLIDATED SALES REVENUES BY GEOGRAPHICAL AREA 1977



Sales of copper concentrates by subsidiary companies in 1977 contained 110,252,000 pounds of copper, 7 per cent higher than the comparable 1976 figure of 103,206,000 pounds. This higher level of sales was due largely to increased production at the Sturgeon Lake operation of Falconbridge Copper Limited. Sales of zinc contained in the concentrates totalled 89,032,000 pounds in 1977, up by 21 per cent from the 1976 figure of 73,430,000 pounds — also

CONSOLIDATED
EXPLORATION
EXPENDITURES
BY GEOGRAPHICAL AREA
1977



attributable to increased production at Sturgeon Lake.

Sales of gold, silver, lead, platinum, palladium and other metals produced by the Company and its subsidiary and associated companies in 1977 are higher than those of 1976.

Exploration

Consolidated exploration expenditures of Falconbridge and its subsidiary companies were \$9,726,000, an increase of \$1,401,000 over the 1976 level. Direct expenditures by Falconbridge Nickel Mines Limited and its wholly-owned subsidiaries during 1977 were \$8,156,000, of which \$2,759,000 was spent for exploration in the Sudbury area.

Due to adverse economic conditions, exploration activity was reduced during the latter half of 1977. A further decrease in exploration expenditures is planned for 1978.

Detailed drilling and evaluation of the zone of copper mineralization at the Company's Strathcona Mine in the Sudbury area continued during the year. Much of this material is included in probable reserves and has increased the amount of copper metal included in ore reserves at year-end.

In Canada, general exploration activities were continued, but at a reduced level, from regional offices in Vancouver, Winnipeg, Thunder Bay, Sudbury, Quebec City and St. John's. Foreign exploration operations were undertaken in the United States, South America, the southern part of the African continent and Norway. The Company's exploration offices in Buenos Aires, Argentina and Rio de Janeiro, Brazil were closed at the end of the year.

Falconbridge is participating as a minority partner in a joint venture program to evaluate a significant porphyry copper prospect in Chile. Diamond drilling has started on the property and initial results are encouraging.

Under the terms of agreements with Global Mining Resources, Inc., Global Marine Inc., and Benguet Consolidated Inc., exploration work was continued on a nickel laterite deposit situated in the Zambales Mountains, about 200 kilometres northwest of Manila in the

Republic of the Philippines. Other prospective nickel laterite deposits in Africa and South America were investigated during the year.

Research and Development

Research activities cost \$3,844,000 in 1977 compared with \$3,769,000 in 1976, and were directed chiefly toward improving metallurgical operations at Falconbridge, at the refinery in Norway, and at the ferronickel plant in the Dominican Republic.

Process research objectives have been not only to develop improvements in existing operations, but also to develop new treatment methods for the recovery of marketable products from the Company's ores. For many years much of this work was carried out in facilities located at the Sudbury Operations. In the latter part of 1977, as a result of a general program of cost reduction, it was decided to terminate research at Falconbridge and to consolidate this activity with those in Falconbridge Metallurgical Laboratories, Richmond Hill, Ontario.

The development of new processes and products, research into the increasingly sophisticated techniques required for analysis of today's high purity materials, the development of new uses for the Company's products, and the provision of technical service to customers will continue to be centred in the Richmond Hill facility. As before, laboratory personnel will continue to work closely with metallurgical and other technical departments located at Falconbridge Nikkelverk and Falconbridge Dominicana, as well as those at Sudbury Operations.

Two notable achievements resulted from recent research work: a new and simple method of removing cobalt from nickel solutions by ion exchange was developed and patented, and a process for producing a new form of high purity nickel for electroplating was tested successfully and is to be brought into commercial operation in 1978.

Environmental Control

The Smelter Environmental Improvement Program and the new tailings disposal area and waste water treatment system for the Falconbridge mill-smelter area are on schedule and expected to be

operational in the first half of 1978. The new tailings and waste water system is intended to bring all the liquid effluents in the Falconbridge area into compliance with the quality criteria established by the Ontario Ministry of Environment.

The joint program conducted by Giant Yellowknife Mines Limited and Environment Canada to develop improved technology for treating gold milling waste waters, which began in 1976, was completed during 1977. The preliminary indications are that the program was technically successful but the treatment concept is more expensive than expected. Investigation of alternative processes is being continued. A study conducted by Giant Yellowknife Mines Limited of the arsenic collection system on the mill roaster also began late in 1976. It has resulted in some minor changes in the equipment and procedures which produced a major reduction in the indicated emission rates. This systematic study will be continued in 1978.

Falconbridge is continuing its participation in three Federal-Provincial-Industrial Task Forces that are studying air and water emissions from smelters and similar facilities and the usable control technology. The objective of the Task Forces is to recommend a basis for Canada-wide emission guidelines and regulations that will protect the environment and be economically acceptable to industry.

Capital

The 7,000,000 issued and unissued common shares in the capital of the Company were reclassified as Class A convertible shares without par value, and 1,000 Class B convertible shares without par value and 1,000 common shares without par value were created by Articles of Amendment dated April 13, 1977. The Class A shares are convertible into Class B shares, and vice versa, on a share for share basis. The sole purpose of this restructuring was to permit shareholders to elect to receive ordinary dividends or tax-deferred dividends as permitted by the Income Tax Act of Canada. The Act was subsequently amended to prohibit the payment of tax-deferred dividends after December 31, 1978. These changes in the capitalization of the Company were

approved at the Annual and General Meeting of Shareholders held on April 12, 1977.

Shareholders

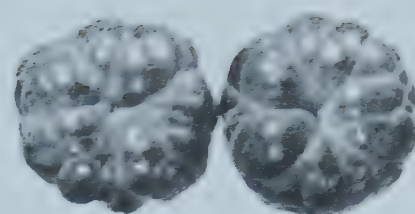
At December 31, 1977 there were 9,150 shareholders, of whom 6,997 were of Canadian registry holding 4,503,100 convertible shares. This represents 90 per cent of the 5,010,055 convertible shares outstanding after deduction of 45,483 shares held by subsidiaries. At the end of the previous year there were 9,788 shareholders of the outstanding common shares, of whom 7,449 were of Canadian registry holding 4,526,638 common shares representing 90 per cent ownership. In addition, the 3,000,000 preference shares with par value of \$25.00 each were held by one shareholder of Canadian registry.

Dividends

The directors declared a dividend of 25 cents per share on the common shares, payable March 31, 1977 and 25 cents per share on the Class A shares, and an equivalent dividend on the Class B shares, payable June 30, 1977. The directors decided not to declare dividends on the Class A and Class B shares for the third and fourth quarters of 1977 due to the depressed nickel market conditions and the severe financial strain on the Company, as cited earlier in this report. The directors also declared dividends due during 1977 on the preference shares, amounting to \$1,692,000.

In Memoriam

On September 7, 1977, four executives of the Company and its Chief Pilot were killed in an aircraft accident near Barrie, Ontario, while travelling on Company business from Sudbury to Toronto. They were John J. Mather, Group Vice-President, and President of the Canadian Nickel Division; Gordon A. Allen, Vice-President, Canadian Nickel Division and General Manager, Sudbury Operations; Kenneth W. Dunn, the Company's Assistant Vice-President Corporate Affairs and Controller; Roy S. Cleland, Manager Engineering and Process Technology, Sudbury Operations; and Chief Pilot Armand R. Hollinsworth of the Falconbridge Aviation Department. These





talented employees had made a very valuable contribution to the Falconbridge Group for many years and their loss was a severe shock to the organization. The directors, management and Company employees joined their families in mourning their sad loss.

Organization

Mr. C. F. H. Carson, Q.C., retired as a director at the Company's annual meeting in April, 1977. He had served with distinction in this capacity since 1956. Mr. Carson was unanimously elected Director Emeritus in recognition of the esteem in which he is held by the Board of Directors.

Mr. Robert Hewitt, Chairman and Chief Executive Officer of Hewitt Equipment Limited, was elected a director on April 12, 1977, succeeding Mr. Carson.

Mr. John M. Donovan, formerly Assistant Controller, was appointed Controller, succeeding the late Mr. Kenneth W. Dunn.

Mr. J. R. Smith, Vice-President Minerals Division, elected early retirement from the Company after twenty-four years of distinguished service. He was also a director and officer of various other companies in the Falconbridge Group.

Select Committee

On January 4, 1978, Falconbridge Nickel Mines Limited presented a Brief to a Select Committee of the Ontario Legislature inquiring into employee layoffs in the nickel industry. On January 19th and 20th, Falconbridge officials again appeared before the Select Committee for questioning. The Company awaits the Committee's report and recommendations.

Appreciation

The directors gratefully acknowledge the excellent cooperation of management and employees throughout 1977, which was an extremely difficult year for the Company and for the mining industry as a whole. They also record their warm appreciation of the continuing support extended by shareholders, customers, suppliers and local plant communities.

On behalf of the Board of Directors:

MARSH A. COOPER,
President and Managing Director.

Toronto, Ontario,
February 28, 1978.

CONSOLIDATED FINANCIAL STATEMENTS

FALCONBRIDGE NICKEL MINES LIMITED

Clarkson, Gordon & Co.

Chartered Accountants

Royal Trust Tower
P.O. Box 251, Toronto-Dominion Centre
Toronto, Canada, M5K 1J7

St. John's Halifax Saint John Québec Montreal
Ottawa Scarborough Toronto Mississauga Hamilton
Kitchener London Windsor Thunder Bay Winnipeg
Regina Calgary Edmonton Vancouver Victoria

Arthur Young, Clarkson, Gordon & Co.
United States—Brazil

Telephone 864-1234 (Area Code 416)

AUDITORS' REPORT

To the Shareholders of
Falconbridge Nickel Mines Limited:

We have examined the consolidated balance sheet of Falconbridge Nickel Mines Limited as at December 31, 1977 and the consolidated statements of earnings, retained earnings and changes in financial position for the year then ended. We have also examined the statement of investment in associated and other companies as at December 31, 1977 and the statement of supplementary information as at December 31, 1977 and for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, subject to the uncertainty as to recovery of certain deferred development and exploration expenditures as explained in note 9(c)(iv), these consolidated financial statements present fairly the financial position of the company as at December 31, 1977 and the results of its operations and the changes in its financial position for the year then ended, and the statement of investment in associated and other companies and the statement of supplementary information present fairly the information set forth therein, all in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada,
March 6, 1978.

Clarkson, Gordon & Co.

Chartered Accountants

ACCOUNTING POLICIES

The principal accounting policies followed by Falconbridge Nickel Mines Limited and its subsidiaries are summarized to facilitate review of the consolidated financial statements contained in this report:

A. Basis of consolidation and accounting standards

- (i) Falconbridge consolidates the financial statements of subsidiary companies (owned more than 50%), and accounts on an equity basis for effectively controlled companies; and
- (ii) The accounting principles followed by the Company are those which are generally accepted in Canada. Foreign subsidiaries' financial statements are restated for consolidation purposes to accord with such principles.

B. Translation of foreign currencies

- (i) Current assets and current liabilities are translated into Canadian dollars at approximate quoted rates of exchange at year-end;
- (ii) Items included in property, plant and equipment, other assets, and non-current liabilities are generally translated into Canadian dollars at the rates of exchange prevailing at the dates the transactions were recorded;
- (iii) Revenues and expenses are translated into Canadian dollars at the approximate average monthly quoted rates of exchange; except that provisions for depreciation, depletion and amortization are translated at the rates prevailing when the expenditures on the related assets were made; and
- (iv) On translation of foreign subsidiaries' financial statements for consolidation purposes, unrealized gains are deferred and losses are reflected in earnings.

C. Revenue recognition

Revenues are recorded in the accounts for the sale of refined metals, ferronickel, industrial minerals and metal castings when legal title passes to the buyer.

Metals contained in concentrate production are sold under long-term contracts. Estimated revenues are recorded in the accounts during the month when the concentrates are produced. The estimated revenues may be subject to adjustment on final settlement or may be adjusted prior to final settlement, usually three or four months after the date of production, to reflect changes in metal market prices and weights and assays.

D. Valuation of inventories

Metals inventories are valued at the lower of cost or net realizable value. Cost includes direct labour and material costs as well as administrative expenses at the operating properties. The cost of inventories derived from Falconbridge's ore is determined on a "last-in, first-out" basis; the cost of inventories derived from the subsidiaries' ore and other sources is determined on a "first-in, first-out" basis. The cost of supplies inventories is determined on an average cost basis.

E. Depreciation, depletion and amortization

- (i) Falconbridge calculates depreciation on the straight-line method at rates designed to amortize plant and equipment over the lesser of their useful lives or the lives of the producing mines to which they relate. For the period ended December 31, 1976, this resulted in a composite rate of 10%; for the year ended December 31, 1977, the composite rate was 7.7%. Generally the subsidiary companies calculate depreciation on the straight-line method at rates varying from 5% to 25%. Depreciation is provided on the production method by Wesfrob Mines Limited and by Falconbridge Copper Limited for certain of its properties;
- (ii) Depletion of properties is provided over a period equal to the lesser of the estimated life of the resources recoverable from the properties, or twenty-five years;
- (iii) Development and preproduction expenditures are deferred until the commencement of commercial production, certain subsequent development expenditures are also deferred, and then written off at rates designed to amortize the expenditures over periods not longer than the lives of the producing mines or properties;
- (iv) Repairs and maintenance are charged to operations or development and preproduction; major betterments and replacements are capitalized. Upon sale or retirement, the cost of the fixed assets and the related accumulated depreciation are removed from the accounts and any gains or losses thereon are taken into earnings; and
- (v) Discount and financing expenses incurred in connection with long-term debt obligations are amortized over the period that the related obligations are outstanding.

F. Exploration

Exploration costs incurred to the date of establishing that a property has reserves which have the potential of being economically recoverable are charged against earnings; further costs are generally capitalized.

G. Research and process development

Research and process development costs are charged against earnings as incurred.

H. Retirement plans

The costs of retirement plans are charged against earnings in the year premiums or required fundings are payable. Past service costs are generally being funded over periods of up to 15 years.

I. Income and mining taxes

All companies follow the tax allocation principle of accounting. Under this principle timing differences between the period when income is reported for tax purposes and the period when it is recorded in the accounts result in provisions for deferred taxes and these are segregated in the deferred income and mining tax account at the year-end.

FALCONBRIDGE NICKEL MINES LIMITED*(Incorporated under the laws of Ontario)***CONSOLIDATED BALANCE SHEET DECEMBER 31, 1977****ASSETS**

	1977	1976
	(000's)	(000's)
CURRENT:		
Cash and temporary investments, at cost which approximates market value (note 10, page 20)	\$ 121,287	\$ 49,022
Accounts and metal settlements receivable (note 12, page 22)	82,781	122,660
Inventories of metals	135,105	47,022
Inventories of supplies	33,206	33,887
	372,379	252,591
 PROPERTY, PLANT AND EQUIPMENT (note 9, page 19):		
Producing assets —		
Plant and equipment, at cost	509,332	494,463
Land and properties, at cost	20,528	20,288
	529,860	514,751
Less accumulated depreciation and depletion	321,588	316,347
	208,272	198,404
Development and preproduction expenditures, at cost less amounts written off	96,496	56,813
	304,768	255,217
Non-producing assets —		
Properties and projects, at cost less amounts written off	150,356	167,654
	455,124	422,871
 OTHER:		
Investment in associated and other companies (Statement 4, page 23)	54,390	53,220
Deposits, long-term accounts receivable and other assets, at cost	2,518	3,292
Debt discount and issue expenses, at cost less amounts written off	3,742	4,011
	60,650	60,523
	\$ 888,153	\$ 735,985

(See notes to consolidated financial statements)

STATEMENT 1

LIABILITIES AND SHAREHOLDERS' EQUITY

	1977 (000's)	1976 (000's)
CURRENT:		
Bank indebtedness	\$ 10,701	\$ 9,147
Accounts payable and accrued charges	60,998	40,537
Advance payments on sales contracts	13,229	
Salaries and wages payable	13,338	15,173
Income and other taxes payable	8,450	4,881
Long-term debt maturing within one year	13,252	30,770
	<u>119,968</u>	<u>100,508</u>
LONG-TERM DEBT (note 10, page 20):		
Falconbridge Nickel Mines Limited	174,604	100,252
Falconbridge Dominicana, C. por A.	113,050	123,193
Other companies	3,740	270
	<u>291,394</u>	<u>223,715</u>
DEFERRED INCOME AND MINING TAXES	<u>30,153</u>	<u>31,656</u>
MINORITY INTEREST	<u>63,511</u>	<u>58,857</u>
SHAREHOLDERS' EQUITY:		
Capital (note 11, page 21) —		
Authorized:		
3,000,000 Preference shares of the par value of \$25 each		
7,001,000 Convertible shares without par value		
1,000 Common shares without par value		
Issued:		
3,000,000 Preference shares	75,000	
5,010,055 Convertible shares in 1977 (5,008,555 shares in 1976)	89,000	88,963
	<u>164,000</u>	<u>88,963</u>
Retained earnings (note 10, page 20)	222,306	235,465
	<u>386,306</u>	<u>324,428</u>
Less 45,483 convertible shares held by subsidiary companies, at cost	(3,179)	(3,179)
	<u>383,127</u>	<u>321,249</u>
On behalf of the Board:		
M. A. COOPER, Director		
W. F. JAMES, Director		
	<u>\$ 888,153</u>	<u>\$ 735,985</u>

FALCONBRIDGE NICKEL MINES LIMITED**STATEMENT 2****CONSOLIDATED STATEMENTS OF EARNINGS AND RETAINED EARNINGS
FOR THE YEAR ENDED DECEMBER 31, 1977****CONSOLIDATED STATEMENT OF EARNINGS***(See additional details — Statement 5, page 24)*

	1977 (000's)	1976 (000's)
Revenues	\$ 381,684	\$ 483,480
Operating expenses:		
Costs other than the undermentioned items	288,943	353,995
Selling, general and administrative expenses	22,686	22,695
Development and preproduction expenditures written off (note 4, page 18)	13,808	16,427
Depreciation and depletion (note 4, page 18)	31,239	33,034
Non-recurring charges (note 3, page 18)	18,518	
	375,194	426,151
Operating profit	6,490	57,329
Interest and amortization of debt expenses (net of interest and other income of \$5,974,000 in 1977 and \$4,294,000 in 1976)	22,247	20,125
Expenditures on exploration	9,726	8,325
Expenditures on research and process development	3,844	3,769
	35,817	32,219
Earnings (loss) before taxes and other items	(29,327)	25,110
Income and mining taxes (note 7, page 18):		
Current	7,298	5,390
Deferred	(7,240)	2,049
	58	7,439
Earnings (loss) after taxes, before other items	(29,385)	17,671
Income from investment in associated and other companies	5,789	4,757
Earnings (loss) before minority interest and extraordinary item	(23,596)	22,428
Minority shareholders' interest in earnings of subsidiary companies	5,627	7,725
Earnings (loss) for the year before extraordinary item	(29,223)	14,703
Extraordinary item (note 2, page 18)	20,238	
Earnings (loss) for the year	(8,985)	14,703
Dividend requirement on preference shares	1,692	
Earnings (loss) applicable to convertible shares	\$ (10,677)	\$ 14,703
Earnings (loss) per convertible share (note 8, page 19):		
Before extraordinary item	\$ (6.23)	\$ 2.96
For the year	\$ (2.15)	\$ 2.96

CONSOLIDATED STATEMENT OF RETAINED EARNINGS

Retained earnings, beginning of year	\$ 235,465	\$ 225,724
Earnings (loss) for the year	(8,985)	14,703
	226,480	240,427
Dividends:		
Convertible shares (50¢ per share in 1977; \$1 per share in 1976)	(2,482)	(4,962)
Preference shares	(1,692)	
Retained earnings, end of year	\$ 222,306	\$ 235,465

(See notes to consolidated financial statements)

STATEMENT 3

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION
FOR THE YEAR ENDED DECEMBER 31, 1977

	1977 <u>(000's)</u>	1976 <u>(000's)</u>
Sources of working capital (funds):		
From operations, being —		
Earnings (loss) for the year before extraordinary item	\$ (29,223)	\$ 14,703
Add (deduct) items entering into the determination of earnings which neither use nor provide funds:		
Depreciation and depletion	33,899	33,034
Development and preproduction expenditures written off	13,983	16,427
Amortization of debt expenses	269	270
Income and mining taxes deferred	(7,209)	1,818
Minority shareholders' interest in earnings of subsidiary companies	5,627	7,725
Gains on disposal of fixed assets	(1,287)	(2,065)
Loss (gain) on disposal and write-off of investments	(78)	80
Interest in earnings of companies accounted for on an equity basis in excess of dividends received	(3,270)	(2,473)
Total from operations	12,711	69,519
Decrease (increase) in other non-current assets	774	(307)
Proceeds from disposal of investments	28,135	341
Proceeds from disposal of fixed assets	2,853	6,064
Subsidiaries acquired and disposed of		94
Issue of convertible shares, stock options exercised	37	75
Bank loans	79,418	
Issue of preference shares	75,000	
	<u>198,928</u>	<u>75,786</u>
Applications of working capital:		
Property, plant and equipment expenditures	61,387	27,210
Development and preproduction expenditures	20,314	23,042
Dividend payments to convertible shareholders	2,482	4,962
Dividend payments to preference shareholders	1,692	
Dividends paid to, and other changes in, minority interest	973	1,136
Increase in investment in associated and other companies	13	49
Decrease in long-term debt	11,739	31,406
	<u>98,600</u>	<u>87,805</u>
Increase (decrease) in working capital during the year	<u><u>\$ 100,328</u></u>	<u><u>\$ (12,019)</u></u>
Changes in components of working capital:		
Increase (decrease) in current assets —		
Cash and temporary investments	\$ 72,265	\$ (21,585)
Accounts and metal settlements receivable	(39,879)	42,541
Inventories.....	87,402	(32,244)
	<u>119,788</u>	<u>(11,288)</u>
Increase (decrease) in current liabilities —		
Bank indebtedness	1,554	4,630
Long-term debt maturing within one year	(17,518)	13,446
Other current liabilities	35,424	(17,345)
	<u>19,460</u>	<u>731</u>
Increase (decrease) in working capital during the year	<u><u>100,328</u></u>	<u><u>(12,019)</u></u>
Working capital, beginning of year	<u><u>152,083</u></u>	<u><u>164,102</u></u>
Working capital, end of year	<u><u>\$ 252,411</u></u>	<u><u>\$ 152,083</u></u>

(See notes to consolidated financial statements)

FALCONBRIDGE NICKEL MINES LIMITED

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 1977

1. Accounting policies

The principal accounting policies followed by Falconbridge and its subsidiary companies are detailed under the caption "Accounting policies" on page 13.

2. Extraordinary item

The public offer made by Canadian Superior Oil Ltd. to purchase any or all of the capital stock of Alminex Limited at a price of 1/13 of a common share of Canadian Superior and \$7.00 cash for each share of Alminex was accepted by the Company. On December 30, 1977, the Company received 294,143 shares of Canadian Superior (with a market value of \$17,465,000) and \$26,767,000 for its 3,823,871 Alminex shares. The transaction resulted in a gain of \$20,238,000 (net of taxes of \$5,706,000).

At December 31, 1977, The Superior Oil Company of Houston is the beneficial owner of 50.9% of the outstanding shares of Canadian Superior Oil Ltd. and 36.2% of the outstanding shares of McIntyre Mines Limited. McIntyre is the largest single shareholder of Falconbridge (owning 36.9% of the outstanding convertible shares).

3. Non-recurring charges

Non-recurring charges include the following:

- (a) Unfavourable price adjustments of \$7,958,000 granted in 1977 in respect of the revenues recorded in 1976;
- (b) Costs, totalling \$3,991,000, associated with certain of the Company's mining projects which it is considered are not now recoverable; and shutdown costs and the residual asset values associated with the Company's Manibridge mine which was closed on April 21, 1977; and
- (c) Expenditures of \$6,569,000 related to the reduction of production at Sudbury and at a consolidated subsidiary's ferronickel operations in the Dominican Republic. These comprise costs of placing certain properties on a standby basis (see note 9(b), page 19) as well as related employee severance payments.

4. Depreciation, depletion, development and preproduction write-offs

During 1977 the Company completed a detailed study of the estimated remaining useful lives of certain property, plant and equipment and related preproduction and development costs. As a result of the study the write-off rates were adjusted on July 1, 1977 to reflect the revised estimates of the economic lives of the assets. This change has reduced depreciation, depletion, development and preproduction write-offs during the last six months of 1977 by \$3,538,000.

5. Foreign exchange translation

- (a) If translated into Canadian dollars at quoted rates of exchange at December 30, 1977 long-term debt would increase by \$15,228,000 to \$306,622,000. This change is not necessarily indicative of the amount which will be repayable when the obligations are retired.
- (b) Realized exchange gains on foreign currency transactions amounting to \$1,298,000 in 1977 (1976 losses — \$264,000) have been recorded in earnings; unrealized gains on translation of foreign subsidiaries' financial statements for consolidation purposes, amounting to \$6,304,000 at December 31, 1977 (1976 — \$1,994,000), have been deferred and included in accounts payable and accrued charges.

6. Retirement plans

The Company and certain of its Canadian subsidiaries maintain retirement plans providing retirement, death and termination benefits for substantially all salaried and hourly rated employees.

Total pension expense for the year was \$11,318,000 (1976 — \$9,161,000) including past service costs of \$5,555,000 (1976 — \$4,526,000). Based on the most recent actuarial evaluation, the unfunded past service costs for all pension plans in effect at December 31, 1977 are approximately \$37,500,000 (1976 — \$32,500,000) including \$21,500,000 (1976 — \$19,000,000) which is computed to have vested. While the companies have no legal liability with regard to the past service cost, including that portion which has vested, the companies present intention is to discharge such unfunded past service costs over periods of up to 15 years.

7. Income and mining taxes

Certain amortization, depreciation and other expenditures of approximately \$29,000,000 recorded in the Company's accounts, but not claimed for tax purposes, are available to reduce taxable incomes of future years. In addition, losses aggregating \$3,500,000 can be carried forward to reduce the Company's taxable incomes in the years up to 1982.

The difference between the amount of reported consolidated income and mining tax expense (credit) and the amount computed by multiplying the loss before tax by the Company's applicable tax rates in 1977 is as follows —

	Canadian taxes			
	Federal and provincial income taxes	Provincial mining taxes	Foreign taxes	Total
	(000's)	(000's)	(000's)	(000's)
Applicable earnings (loss) before taxes	<u>\$(33,780)</u>	<u>\$(33,780)</u>	<u>\$ 4,453</u>	<u>\$(29,327)</u>
Current tax rates	<u>48%</u>	<u>13%*</u>	<u>48%</u>	
Earnings (loss) before taxes multiplied by tax rate	<u>\$(16,214)</u>	<u>\$ (4,391)</u>	<u>\$ 2,137</u>	
Taxes reported in accounts	<u>(1,641)</u>	<u>135</u>	<u>1,564</u>	<u>\$ 58</u>
Increase (decrease) to be reconciled	<u>\$ 14,573</u>	<u>\$ 4,526</u>	<u>\$ (573)</u>	
Reconciliation —				
(1) Non-claimable expenses	<u>\$ 1,570</u>	<u>\$ 3,473</u>	<u>\$ 832</u>	
(2) Non-taxable losses		<u>1,064</u>		
(3) Resource, depletion, processing and inventory allowances	<u>(4,212)</u>	<u>(467)</u>		
(4) Adjustments to current tax rates		<u>456</u>	<u>(1,405)</u>	
(5) Unrecorded deferred tax debit	<u>17,215</u>			
	<u>\$ 14,573</u>	<u>\$ 4,526</u>	<u>\$ (573)</u>	

* Average rate of accumulation of Company's deferred tax credits.

Falconbridge Dominicana, C. por A. (Falcondo), a subsidiary company, has received income tax assessments for the 1972 and 1973 fiscal years approximating Cdn. \$5,256,000. Falcondo is presently appealing these assessments and, based on counsel's opinion, the Company has not provided for and believes that there will be no material adjustments required to the consolidated accounts.

8. Earnings (loss) per convertible share

Earnings (loss) per convertible share have been computed using the weighted average number of shares outstanding (excluding shares held by subsidiary companies). Inclusion in the earnings (loss) per share computation of shares subject to issue under outstanding options would produce substantially the same results.

The preference shareholders' prior claims on earnings have been deducted for purposes of this calculation.

9. Property, plant and equipment

- (a) All property, plant and equipment and related deferred development and preproduction expenditures are recorded at cost and include, where appropriate, the unamortized difference between Falconbridge's interest in the book value of the net assets of its subsidiaries and the carrying value of Falconbridge's investment.
- (b) As a result of production curtailments, in the Integrated nickel operations, and further planned cutbacks for early in 1978, property, plant and equipment and the related preproduction and development expenditures, with a net aggregate carrying value of approximately \$65,000,000, will be placed on a standby basis. The Company is confident that, with proper care and maintenance during the standby period, the productive capacity of these assets will not be impaired.
- (c) Non-producing assets do not include the assets placed on a standby basis (referred to in note (b) above) but include the following:

Company and project	1977 (000's)	1976 (000's)
Falconbridge Nickel Mines Limited —		
Lockerby mine (i)		\$ 59,481
Smelter environmental improvement project —		
Smelter (ii)	\$ 51,824	24,790
Acid plant (ii)	14,153	6,961
Fraser mine (ii)	16,350	7,961
Other projects (iii)	6,615	5,884
Falconbridge Copper Limited —		
Cooke mine (i)		7,319
Corbet mine (ii)	12,251	7,118
Falconbridge Nikkelverk Aktieselskap —		
Process revision program (ii)	6,060	5,532
New Quebec Raglan Mines Limited —		
Subsidiary's Cape Smith-Wakeham Bay properties (iv)	33,983	33,841
Other subsidiary companies' projects (iii)	9,120	8,767
	<u>\$ 150,356</u>	<u>\$ 167,654</u>

(i) In commercial production in 1977, reclassified from non-producing to appropriate producing assets balance sheet classifications.

FALCONBRIDGE NICKEL MINES LIMITED

- (ii) In the preproduction stage.
 - (iii) Includes the costs related to certain projects upon which further work has been suspended pending a more favourable economic climate. The Company believes there is reasonable expectation that these costs will be recovered.
 - (iv) Exploration, development and other expenditures relating to New Quebec Raglan Mines Limited (a 68.3% owned subsidiary) and its wholly-owned subsidiary company, Raglan Quebec Mines Limited, incurred in the development of the latter company's Cape Smith-Wakeham Bay properties.
- Development work on these properties was suspended in 1971. Feasibility studies continued through 1977 and indicate that recovery of these costs through future mining operations is dependent upon (a) substantial increases in the present world nickel prices; (b) the ability to raise sufficient capital financing; (c) the successful development of an economic mining operation; (d) marketing of production; and (e) maintaining the permits and licences in good standing.

Because of the world's current over-supply of nickel it cannot be predicted with certainty when the expenditures on the properties will be recovered by charges against income from future mining operations.

10. Long-term debt

A. Details of long-term debt are as follows:

(i) Falconbridge Nickel Mines Limited

	1977 (000's)	1976 (000's)
7.75% Sinking fund debentures maturing February, 1991 (a)	\$ 47,500	\$ 48,750
8.85% Sinking fund debentures maturing May, 1996 (U.S. \$50,000,000) (b)	51,094	51,094
Bank loan due August 31, 1982 (8.75% at December 31, 1977) (c)	75,900	
Mortgages on Company housing and other obligations	110	408
Total (1977 net of \$1,253,000 maturing within one year)	<u>\$ 174,604</u>	<u>\$ 100,252</u>

(a) The Company is required to make sinking fund payments sufficient to retire \$1,250,000 principal amount of the 7.75% debentures in each of the years 1978 to 1990.

(b) No portion of the principal is due on the 8.85% debentures until 1981 when the Company is required to commence sinking fund payments sufficient to retire U.S. \$3,000,000 principal amount of debentures in each of the years 1981 to 1995.

(c) The bank loan is part of a line of credit of \$80,000,000 extended by a Canadian bank. Interest is payable monthly at the rate of ½ of 1% over the bank's minimum commercial lending rate as may be established from time to time during the term of the loan. If in the opinion of the bank there is any material adverse change in the Company's operations or financial position the \$75,900,000 outstanding loan may, at the option of the bank, become immediately due and payable.

(ii) Falconbridge Dominicana, C. por A.

(a) Due to Loma Corporation* (payable in U.S. currency) —

8% Series B demand mortgage notes		RD\$ 10,250
8½% Series C demand mortgage notes	RD\$ 68,570	76,190
8½% Series D demand subordinate notes	34,000	34,000
	<u>102,570</u>	<u>120,440</u>

* Payment will only be demanded in certain circumstances, the most significant being to meet payment due on notes of Loma Corporation (a U.S. financing company) issued in the same principal amounts and at the same interest rates as the above demand notes, as follows:

8½% Series C secured sinking fund notes, due semi-annually to 1986; and

8½% Series D guaranteed sinking fund notes, due semi-annually 1987 to 1991 inclusive.

(b) Due to International Bank for Reconstruction and Development —

7% Loans, due semi-annually to 1984, payable in various currencies ..	19,756	20,411
	<u>122,326</u>	<u>140,851</u>

(c) Company housing —

9½% Mortgages on company housing repayable monthly to 1993, in Dominican Republic currency	2,137	2,210
	<u>124,463</u>	<u>143,061</u>

Less long-term debt maturing within one year

Total — Expressed in Dominican Republic currency

Total — Expressed in Canadian currency and reflecting Canadian accounting principles (1977 net of \$11,511,000 maturing within one year)

\$ 113,050 \$ 123,193

(iii) **Other companies**

Total (1977 net of \$488,000 maturing within one year)	<u>\$ 3,740</u>	<u>\$ 270</u>
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(iv) **Maturities and sinking fund requirements**

Maturities and sinking fund requirements (exclusive, other than in 1978, of foreign exchange adjustments) for the next five years are as follows:

1978 — \$13,252,000	1981 — \$15,370,000
1979 — \$12,300,000	1982 — \$91,393,000
1980 — \$12,249,000	

B. Guarantees, covenants and restrictions:

(i) Falconbridge has guaranteed portions of the long-term debt of Falconbridge Dominicana, C. por A. (Falcondo), details of which are as follows —

(a) All loans are secured by a first mortgage on the assets of Falcondo and by a contract under which Falconbridge Nickel Mines Limited has agreed to buy all ferronickel of commercial value produced by Falcondo. Falconbridge is also obligated to provide 60% of the funds required by Falcondo to enable it to meet its operating costs and debt service obligations in the event receipts from the sale of ferronickel produced by Falcondo and other receipts are insufficient for that purpose. The loans due to Loma Corporation are covered by a specific risk insurance issued by the Overseas Private Investment Corporation.

(b) Falconbridge has pledged all of its holdings of its shares of Falcondo against repayment of these loans, except the mortgages on company housing and the subordinated portion of U.S. \$34,000,000. In addition, Falconbridge has made a direct guarantee for repayment of 60% of this subordinated portion of the loan.

(c) In accordance with the terms of the loan agreements, funds of \$10,204,000 (1976 — \$20,608,000) (included with cash and temporary investments) are on deposit with the Trustee for use in paying current debt service and operating expenses of Falcondo.

(ii) During the period that the Falcondo loans are outstanding, there are certain restrictions placed on the amount and nature of borrowing that Falconbridge can undertake. Covenants given by Falconbridge in this respect are substantially the same (other than the restriction on the payment of dividends) as those given by Falconbridge under its 8.85% debentures which include limitations as to:

(a) The amount of dividends which may be paid by Falconbridge (see (iii) below);

(b) The assumption of additional long-term debt; and

(c) Guarantees which it may give on certain indebtedness of its subsidiary and other companies.

(iii) At December 31, 1977, the portion of retained earnings restricted under the 8.85% debenture covenants and not available for dividend payment was \$101,122,000.

11. Capital

On April 12, 1977 at the Annual and General Meeting, shareholders authorized an amendment of the Articles of the Company by redesignating the then existing 7,000,000 common, issued and unissued, shares without par value as Class A convertible shares without par value, and by increasing the capital of the Company through creation of 1,000 Class B convertible shares without par value and 1,000 common shares. Accordingly, the holders of the common shares became holders of an equal number of Class A convertible shares without par value on April 13, 1977. Class A and Class B shares are inter-convertible at any time and are similar in all respects, including dividend rights, except that dividends on Class B shares may be declared payable out of either or both "tax-paid undistributed surplus on hand" or "1971 capital surplus on hand" as defined in the Income Tax Act of Canada. A recent amendment to the Tax Act has the effect of prohibiting payments from these accounts after December 31, 1978.

On conversion of Class A shares to Class B shares, the number of authorized Class B shares is increased by the number of Class A shares converted and the number of authorized Class A shares is decreased to the same extent. Similarly, on conversion of Class B shares to Class A shares, the number of authorized Class A shares is increased by the number of Class B shares converted and the number of authorized Class B shares is decreased to the same extent. In this way there will always be authorized capital to provide for conversion. At December 31, 1977 there were 5,010,055 convertible shares issued and outstanding comprised of 4,858,519 Class A shares and 151,536 Class B shares.

During 1977, 1,500 convertible shares were issued under the stock option plan available to employees. Options on 15,960 convertible shares, expiring December 19, 1978, remain outstanding. The price for which share options outstanding may be issued is \$25.00 per share and loans may be granted to assist employees in the purchase of shares under options

FALCONBRIDGE NICKEL MINES LIMITED

In August, 1977, the Company issued its 3,000,000 authorized Variable Rate Cumulative Redeemable Preference Shares, Series "A", with a par value of \$25.00 each to a Canadian chartered bank for \$75,000,000. The preference shares must be redeemed in August 1984 or may be redeemed earlier at the Company's option upon giving 30 days notice; and have a cumulative variable rate dividend. The dividend rate is calculated on a quarterly basis, equal to half the bank's prime rate plus 1.5 per cent; and the rate was 5.625 per cent at December 31, 1977.

12. Commitments and contingent liabilities

- (a) The Company is committed to an environmental improvement project involving major revisions to its smelting facilities at its Sudbury operations. This project, the cost of which was estimated in 1974 at \$95,000,000, is expected to come on stream in April 1978 at a cost now estimated at \$83,000,000 (of which \$65,977,000 has been expended to December 31, 1977).
- (b) There are commitments outstanding aggregating approximately \$9,000,000 in connection with the smelter environmental improvement project and other capital expenditures of the Company and its subsidiaries.
- (c) The following directives from the Ontario Government are under continuing study and discussion with government officials:
 - (i) Construction of Canadian refining facilities;
 - (ii) Exemption, until December 31, 1979, from a requirement to process in Canada ores mined from certain properties of the Company in Ontario, such exemption being limited to the quantity of nickel-copper matte capable of producing not more than 85,000,000 pounds of nickel;
 - (iii) The deferral for a period of five years, which commenced April 9, 1974, of the disallowance of the deduction of the cost of processing minerals outside of Canada (specifically the operating costs of the Company's refinery in Norway) in determining profit subject to Ontario Mining Tax; and
 - (iv) Additional environmental controls related to smelter emissions and waste management at the Sudbury operations.

Pending completion of such discussions, it is not practicable to estimate the potential costs arising from these directives.
- (d) In September, 1976, a court-appointed referee awarded termination pay, substantially in excess of that already paid by the Company, to employees who were laid off at Sudbury operations in late 1975. No provision has been made in the accounts for the award, estimated at \$960,000, since an application for a judicial review of the referee's decision has been made and remained outstanding at year-end.
- (e) During 1977 accounts receivable were either sold without recourse or discounted with recourse. The cost, which was charged against earnings at the date of discounting, amounted to \$3,185,000. At December 31, 1977, the Company has a contingent liability of U.S. \$30,943,000 in respect of discounted bills of exchange drawn on its accounts receivable.

13. Remuneration of directors and senior officers

Charges included in the consolidated statement of earnings for remuneration paid or payable to directors and senior officers, as defined under the Business Corporations Act of Ontario, amounted to \$1,344,000 (1976 — \$1,332,000).

14. Anti-inflation program

Effective October 14, 1975 the Federal Government passed the Anti-Inflation Act and subsequently issued Regulations which are to be phased out at various dates to December 31, 1978. Under this legislation the Company and its Canadian subsidiaries are subject to mandatory compliance with controls on prices, profit margins, employee compensation and shareholder dividends. The Company believes that it was in compliance with these controls.

Under the Regulations, dividends to the Company's convertible shareholders during the year ending October 13, 1978 may not exceed \$2.29 per share.

FALCONBRIDGE NICKEL MINES LIMITED

STATEMENT 4

STATEMENT OF INVESTMENT IN ASSOCIATED AND OTHER COMPANIES

	Shares			Carrying value		Contribution to earnings (000's)
	Shares of common stock	Beneficial interest	Market value (note 1) (000's)	Shares (note 2) (000's)	Bonds notes and advances (000's)	
December 31, 1977:						
Akaitcho Yellowknife Gold Mines Limited	1,198,230	36.7%	\$ 1,378	\$ 232		\$ 60
Canadian Superior Oil Ltd.	294,143	3.3	17,465	17,465		
Dickstone Copper Mines Ltd.	517,725	27.2	67			
Dunraine Mines Limited	1,068,558	48.6	64	59	\$ 73	
Giant Yellowknife Mines Limited	824,413	19.2	8,557	3,799		124
McIntyre Mines Limited	175,825	7.2	4,506	10,175		176
The Superior Oil Company	14,000	0.3	3,570	3,118		28
Thompson-Lundmark Gold Mines Limited	600,000	12.0	174	377		
United Keno Hill Mines Limited	1,195,989	48.4	10,022	7,279		1,168
Other companies			66			
			<u>\$ 45,869</u>	<u>42,504</u>	<u>73</u>	<u>1,556</u>
Investments with no quoted market value —						
Western Platinum Limited	2,500,001	25.0		6,214	5,224	
Other companies				345	30	379
				<u>\$ 49,063</u>	<u>\$ 5,327</u>	<u>\$ 1,935</u>
				<u>\$ 54,390</u>		(note 4)
December 31, 1976:						
Akaitcho Yellowknife Gold Mines Limited	1,198,230	36.7%	\$ 779	\$ 232		\$ 60
Alminex Limited (note 3) /.....	3,823,871	49.9	28,679	15,469		3,424
Asamera Oil Corporation Ltd.	112,620	1.5	1,323	1,073		29
Dickstone Copper Mines Ltd.	517,725	27.2	243			21
Dunraine Mines Limited	1,068,558	48.6	48	59	\$ 63	
Giant Yellowknife Mines Limited	824,413	19.2	5,771	3,799		82
McIntyre Mines Limited	175,825	7.2	5,363	10,175		176
The Superior Oil Company	14,000	0.3	3,304	3,118		25
Thompson-Lundmark Gold Mines Limited	600,000	12.0	288	377		
United Keno Hill Mines Limited	1,195,989	48.4	7,923	6,829		841
Other companies			97	25		18
			<u>\$ 53,818</u>	<u>41,156</u>	<u>63</u>	<u>4,676</u>
Investments with no quoted market value —						
Western Platinum Limited	2,500,001	25.0		6,214	5,224	
Other companies				529	34	161
				<u>\$ 47,899</u>	<u>\$ 5,321</u>	<u>\$ 4,837</u>
				<u>\$ 53,220</u>		

- Notes: 1. The market values shown are based on Canadian and U.S. stock exchanges' closing bid prices on December 30, 1977 and December 31, 1976. Because of the number of shares involved the amounts that could be realized if these securities were to be sold may be more or less than their indicated market value.
2. The carrying value represents the cost of the investments less amounts written off, and also reflects the interest in earnings (losses) of Alminex Limited, United Keno Hill Mines Limited and certain of the "Other companies" which are accounted for on an equity basis.
3. See note 2, page 18, of the notes to consolidated financial statements.
4. In addition to the amounts shown, \$3,776,000 was contributed to earnings from the investment in Alminex Limited which was disposed of during 1977 (see note 2, page 18, of the notes to consolidated financial statements).

FALCONBRIDGE NICKEL MINES LIMITED

STATEMENT OF SUPPLEMENTARY INFORMATION *(Thousands of dollars)*

December 31, 1977

% ownership	Integrated nickel operations (100%) (note 2)	Unallocated corporate (100%) (note 2)	Falconbridge Copper Limited (50.2%)	Falconbridge Dominicana, C. por A. (65.7%) (note 3)	Indusmin Limited (69.0%)	Oamtes Mining Company (Proprietary) Limited (74.9%)	Wesfrob Mines Limited (100%)
OPERATIONS (note 3):							
Revenues	\$ 118,867	\$ 1,892	\$ 107,455	\$ 98,962	\$ 42,442	\$ 10,494	\$ 8,298
Operating expenses —							
Costs other than the undermentioned items	92,004		85,180	65,980	31,279	9,005	9,120
Selling, general and administrative expenses	10,473	3,575	624	2,913	4,774	1,139	119
Development and preproduction expenditures written off	7,306		3,736	2,851	24	116	278
Depreciation and depletion	13,869	530	4,548	7,414	2,543	944	442
Non-recurring charges	10,912	7,221		385			
	<u>134,564</u>	<u>11,326</u>	<u>94,088</u>	<u>79,543</u>	<u>38,620</u>	<u>11,204</u>	<u>9,959</u>
Operating profit (loss)	<u>(15,697)</u>	<u>(9,434)</u>	<u>13,367</u>	<u>19,419</u>	<u>3,822</u>	<u>(710)</u>	<u>(1,661)</u>
Interest and amortization of debt expenses (net)	6,546	3,265	(996)	12,785	691	(17)	
Expenditures on exploration	2,979	4,086	1,463	75	25		555
Expenditures on research and process development	3,784				103		
	<u>13,309</u>	<u>7,351</u>	<u>467</u>	<u>12,860</u>	<u>819</u>	<u>(17)</u>	<u>555</u>
Earnings (loss) before taxes and investment income (net)	(29,006)	(16,785)	12,900	6,559	3,003	(693)	(2,216)
Income and mining taxes	(7,377)	18	5,304	1,862	1,004	(244)	1
Earnings (loss) from operations	<u>(21,629)</u>	<u>(16,803)</u>	<u>7,596</u>	<u>4,697</u>	<u>1,999</u>	<u>(449)</u>	<u>(2,217)</u>
Investment income (net)		5,444	14		72		
Earnings (loss) for the year before other items	<u>\$ (21,629)</u>	<u>\$ (11,359)</u>	<u>\$ 7,610</u>	<u>\$ 4,697</u>	<u>\$ 2,071</u>	<u>\$ (449)</u>	<u>\$ (2,217)</u>
Falconbridge's interest in above earnings (loss) after consolidation adjustments (note 3)	<u>\$ (21,629)</u>	<u>\$ (11,359)</u>	<u>\$ 2,913</u>	<u>\$ 2,788</u>	<u>\$ 1,251</u>	<u>\$ (336)</u>	<u>\$ (2,211)</u>
WORKING CAPITAL (note 4):							
Current assets	\$ 257,982		\$ 42,129	\$ 64,778	\$ 16,456	\$ 4,035	\$ 5,369
Current liabilities	86,824		9,433	21,993	10,840	2,652	3,270
	<u>\$ 171,158</u>		<u>\$ 32,696</u>	<u>\$ 42,785</u>	<u>\$ 5,616</u>	<u>\$ 1,383</u>	<u>\$ 2,099</u>
PROPERTY, PLANT AND EQUIPMENT (note 5):							
Producing assets, at net book value —							
Plant and equipment	\$ 68,890		\$ 7,718	\$ 96,036	\$ 18,075	\$ 5,022	\$ 4,055
Land and properties	3,965		1,062	1,971	961	129	
Development and preproduction expenditures	51,068		8,520	33,895	464	608	1,941
	<u>\$ 123,923</u>		<u>\$ 17,300</u>	<u>\$ 131,902</u>	<u>\$ 19,500</u>	<u>\$ 5,759</u>	<u>\$ 5,996</u>
Non-producing assets, at cost less amounts written off	<u>\$ 96,397</u>		<u>\$ 12,251</u>		<u>\$ 643</u>		
PRINCIPAL PRODUCTS	Nickel and copper		Copper and zinc	Ferronickel	Industrial minerals and metal castings	Copper	Iron and copper
PRINCIPAL LOCATION OF ASSETS	Ontario and Norway		Quebec and Ontario	Dominican Republic	Ontario and Quebec	South- West Africa	British Columbia
MARKET VALUE OF FALCONBRIDGE'S SHAREHOLDINGS (note 6)			<u>\$ 30,921</u>		<u>\$ 8,161</u>		

(See notes to statement of supplementary information)

STATEMENT 5

December 31, 1976

Others	Consolidated total (after adjustments) (note 3)	Integrated nickel operations (100%) (note 2)	Unallocated corporate (100%) (note 2)	Falconbridge Copper Limited (50.2%)	Falconbridge Dominicana, C. por A. (65.7%) (note 3)	Indusmin Limited (69.0%)	Oamites Mining Company (Proprietary) Limited (74.9%)	Wesfrob Mines Limited (100%)	Others	Consolidated total (after adjustments) (note 3)
\$ 986	\$ 381,684	\$ 210,341	\$ 2,161	\$ 89,163	\$ 116,288	\$ 38,831	\$ 10,060	\$ 12,056	\$ 853	\$ 483,480
563	288,943	162,687		71,498	71,024	27,158	7,796	9,907	931	353,995
782	22,686	10,496	3,443	618	4,197	4,092	958	162	169	22,695
	13,808	9,430		3,175	2,851	25	115	1,334		16,427
45	31,239	14,298	596	5,338	7,738	2,370	896	695	169	33,034
	18,518									
1,390	375,194	196,911	4,039	80,629	85,810	33,645	9,765	12,098	1,269	426,151
(404)	6,490	13,430	(1,878)	8,534	30,478	5,186	295	(42)	(416)	57,329
(36)	22,247	4,675	1,929	(580)	13,583	689	(15)		(155)	20,125
543	9,726	2,170	3,717	1,338	219	17		305	559	8,325
	3,844	3,878								3,769
507	35,817	10,723	5,646	758	13,802	706	(15)	305	404	32,219
(911)	(29,327)	2,707	(7,524)	7,776	16,676	4,480	310	(347)	(820)	25,110
45	58	(2,020)	(1,436)	2,947	5,515	1,524	115		126	7,439
(956)	(29,385)	4,727	(6,088)	4,829	11,161	2,956	195	(347)	(946)	17,671
342	5,789		4,636	29		74			99	4,757
\$ (614)	\$ (23,596)	\$ 4,727	\$ (1,452)	\$ 4,858	\$ 11,161	\$ 3,030	\$ 195	\$ (347)	\$ (847)	\$ 22,428
\$ (640)	\$ (29,223)	\$ 4,727	\$ (1,452)	\$ 1,637	\$ 8,834	\$ 2,019	\$ 128	\$ (337)	\$ (853)	\$ 14,703
\$ 1,163	\$ 372,379	\$ 159,470		\$ 29,961	\$ 68,961	\$ 16,005	\$ 3,761	\$ 5,091	\$ 1,327	\$ 252,591
353	119,968	77,009		5,552	31,551	12,098	2,267	1,229	193	100,508
\$ 810	\$ 252,411	\$ 82,461		\$ 24,409	\$ 37,410	\$ 3,907	\$ 1,494	\$ 3,862	\$ 1,134	\$ 152,083
\$ 386	\$ 200,182	\$ 52,336		\$ 10,223	\$ 101,051	\$ 15,299	\$ 5,495	\$ 4,236	\$ 305	\$ 188,945
2	8,090	4,220		2,357	1,770	957	154		1	9,459
	96,496	12,748		4,405	36,242	488	723	2,207		56,813
\$ 388	\$ 304,768	\$ 69,304		\$ 16,985	\$ 139,063	\$ 16,744	\$ 6,372	\$ 6,443	\$ 306	\$ 255,217
\$ 41,065	\$ 150,356	\$ 112,099		\$ 14,437		\$ 643			\$ 40,475	\$ 167,654
		Nickel and copper		Copper and zinc	Ferronickel	Industrial minerals and metal castings	Copper	Iron and copper		
		Ontario, Manitoba and Norway		Quebec and Ontario	Dominican Republic	Ontario and Quebec	South- West Africa	British Columbia		
\$ 12,701	\$ 51,783			\$ 38,244		\$ 7,859			\$ 14,263	\$ 60,366

FALCONBRIDGE NICKEL MINES LIMITED

NOTES TO STATEMENT OF SUPPLEMENTARY INFORMATION DECEMBER 31, 1977

1. Translation of foreign currencies

Foreign currency items have been translated into Canadian dollars as explained in note B of the accounting policies on page 13.

2. Integrated nickel operations and Unallocated corporate

Included under the caption "Integrated nickel operations" are the accounts of the Company and all its wholly-owned subsidiaries engaged in the integrated operations of mining, milling, smelting, refining and marketing of nickel mainly derived from Canadian ore. The Integrated nickel's production operations are interdependent and are carried on in Canada (mainly mining and reducing ore to matte at Sudbury) and in Norway (matte refining). The Marketing Division is structured to serve worldwide markets. That portion of the Company's net corporate expenditures relating to the overall direction and management of other activities of the Falconbridge group of companies, dividend income and interest in the earnings of effectively controlled companies have been segregated under the caption "Unallocated corporate". It is not practical to segregate certain of the Integrated nickel operations and the Company's Corporate balance sheet items.

3. Operations

Adjustments have been made on consolidation as follows:

(a) Amortization of purchase discrepancies

Generally the difference between Falconbridge's interest in the book value of the net assets of its operating subsidiaries and the carrying value of Falconbridge's investment is amortized in each case over the lesser of (i) the estimated life of the subsidiary's recoverable resources or (ii) a period of twenty-five years from the date of acquisition of the investment or the date the subsidiary commenced operations.

(b) Falconbridge Dominicana, C. por A. (Falcondo)

The ferronickel produced by Falcondo is purchased and marketed by Falconbridge. The earnings of Falcondo include profits on all ferronickel sold to Falconbridge, whereas consolidated earnings exclude the profits relating to inventories of ferronickel held by Falconbridge at December 31 for subsequent resale to customers.

4. Working capital

See note 10B, page 21, of the notes to consolidated financial statements for particulars of funds held in trust in respect of Falcondo.

5. Property, plant and equipment

See note 9, page 19, of the notes to consolidated financial statements.

6. Market value of Falconbridge's shareholdings

The market values shown are based on Canadian stock exchanges' closing bid prices on December 30, 1977 and December 31, 1976. Because of the number of shares held by Falconbridge (representing control of the companies concerned), the amounts that could be realized if these securities were to be sold may be more or less than their indicated market value.

SUMMARY OF 1977 CONSOLIDATED RESULTS BY QUARTERS

(Unaudited — 000's omitted)

	1977					1976
	March 31	Three months ended			Year	
		June 30	Sept. 30	Dec. 31		
		(note 4)	(note 4)			
Metal Sales (pounds):						
Integrated nickel operations —						
Nickel	10,146	9,735	3,364	8,802	32,047	80,176
Copper	11,119	10,105	11,276	10,177	42,677	34,076
Cobalt	333	427	428	306	1,494	2,079
Falconbridge Copper Limited —						
Copper	22,927	23,294	23,485	22,663	92,369	82,939
Zinc	23,018	20,060	22,953	23,001	89,032	73,430
Falconbridge Nickel Mines Limited (note 1) —						
Ferronickel (sales to customers)	13,841	14,047	8,455	7,051	43,394	59,781
Earnings:						
Revenues from metals and other products	\$ 111,531	\$ 106,431	\$ 70,808	\$ 92,914	\$ 381,684	\$ 483,480
Interest, investment and other income	2,088	2,212	3,455	4,008	11,763	9,051
	<u>113,619</u>	<u>108,643</u>	<u>74,263</u>	<u>96,922</u>	<u>393,447</u>	<u>492,531</u>
Costs other than the undermentioned	83,660	82,344	64,778	80,847	311,629	376,690
Depreciation, depletion, development and						
preproduction written off	12,248	12,196	11,014	9,589	45,047	49,461
Non-recurring charges		675	4,366	13,477	18,518	
Exploration, research and process development	3,015	3,490	3,801	3,264	13,570	12,094
Interest and amortization of debt expenses	5,943	6,724	7,114	8,440	28,221	24,419
Income and mining taxes	2,993	3,828	(547)	(6,216)	58	7,439
Minority interest in earnings of subsidiaries	2,808	2,110	(135)	844	5,627	7,725
	<u>110,667</u>	<u>111,367</u>	<u>90,391</u>	<u>110,245</u>	<u>422,670</u>	<u>477,828</u>
Earnings (loss) for the period before extraordinary						
item	2,952	(2,724)	(16,128)	(13,323)	(29,223)	14,703
Extraordinary item (note 5)				20,238	20,238	
Earnings (loss) for the period	2,952	(2,724)	(16,128)	6,915	(8,985)	14,703
Dividend requirement on preference shares			629	1,063	1,692	
Earnings (loss) applicable to convertible shares	<u>\$ 2,952</u>	<u>\$ (2,724)</u>	<u>\$ (16,757)</u>	<u>\$ 5,852</u>	<u>\$ (10,677)</u>	<u>\$ 14,703</u>
Earnings (loss) per convertible share:						
Before extraordinary item	59¢	(55)¢	\$ (3.37)	\$ (2.90)	\$ (6.23)	\$ 2.96
For the period	<u>59¢</u>	<u>(55)¢</u>	<u>\$ (3.37)</u>	<u>\$ 1.18</u>	<u>\$ (2.15)</u>	<u>\$ 2.96</u>
Earnings (loss) contributions (note 2):						
Alminex Limited (note 3)	\$ 947	\$ 957	\$ 1,046	\$ 826	\$ 3,776	\$ 3,424
Falconbridge Copper Limited	1,508	500	(84)	989	2,913	1,637
Falconbridge Dominicana, C. por A.	2,201	2,473	(476)	(1,410)	2,788	8,834
Indusmin Limited	(53)	524	298	482	1,251	2,019
Oamites Mining Company (Proprietary) Limited	123	(104)	(180)	(175)	(336)	128
United Keno Hill Mines Limited (note 3)	178	182	510	298	1,168	841
Wesfrob Mines Limited	131	(587)	(671)	(1,084)	(2,211)	(337)
Other consolidated companies	44	164	(83)	(765)	(640)	(853)
Total	5,079	4,109	360	(839)	8,709	15,693
Unallocated corporate (net) (note 3)	(822)	(2,893)	(5,226)	(7,362)	(16,303)	(5,717)
	<u>4,257</u>	<u>1,216</u>	<u>(4,866)</u>	<u>(8,201)</u>	<u>(7,594)</u>	<u>9,976</u>
Integrated nickel operations, net of allocated						
corporate costs	(1,305)	(3,940)	(11,262)	(5,122)	(21,629)	4,727
Earnings (loss) for the period before extraordinary						
item	2,952	(2,724)	(16,128)	(13,323)	(29,223)	14,703
Extraordinary item (note 5)				20,238	20,238	
Earnings (loss) for the period	2,952	(2,724)	(16,128)	6,915	(8,985)	14,703
Dividend requirement on preference shares			629	1,063	1,692	
	<u>\$ 2,952</u>	<u>\$ (2,724)</u>	<u>\$ (16,757)</u>	<u>\$ 5,852</u>	<u>\$ (10,677)</u>	<u>\$ 14,703</u>

Notes:

- See note 3, page 26, of the notes to statement of supplementary information.
- Includes the items detailed in note 3, page 18, of the notes to consolidated financial statements.
- Unallocated corporate shown on statement 5, page 24, is after reflecting the interest in earnings of Alminex Limited and United Keno Hill Mines Limited, which are accounted for on the equity basis.
- The results of operations in the interim reports issued during 1977 for the six months ended June 30 and for the nine months ended September 30 have been revised to reflect certain adjustments to revenues and costs made at December 31, 1977 which are retroactive to these periods. The revisions had the effect of increasing the consolidated losses previously reported for the quarters ended June 30 and September 30 by \$603,000 (13 cents per convertible share) and \$1,573,000 (31 cents per convertible share) respectively.
- See note 2, page 18, of the notes to consolidated financial statements.

FALCONBRIDGE NICKEL MINES LIMITED

TEN-YEAR REVIEW

		1977	1976	1975	1974	1973	1972	1971	1970	1969	1968
EARNINGS (LOSS) (000's)	Revenues	\$ 381,684	483,480	409,888	443,508	426,834	266,851	204,407	214,315	186,030	143,811
	Earnings (loss) (before extraordinary item)	\$ (29,223)	14,703	3,221	30,595	49,343	5,165	17,468	42,190	46,890	34,946
	Per convertible share (note 1)	\$ (6.23)	2.96	0.65	6.17	9.96	1.04	3.52	8.52	9.53	7.13
	Extraordinary item	\$ 20,238				7,100	(49,456)		(475)	669	
	Per convertible share (note 1)	\$ 4.08				1.43	(9.98)		(0.10)	0.14	
EARNINGS (LOSS) CONTRIBUTIONS — after consolidation adjustments, before extraordinary items (000's)	Unallocated corporate (note 6)	\$ (16,303)	(5,717)	(4,352)	(2,688)	(2,711)	(3,402)				
	Alminex Limited	\$ 3,776	3,424	2,952	2,922	2,040	1,263				
	Falconbridge Copper Limited	\$ 2,913	1,637	198	3,981	12,295	3,058				
	Falconbridge Dominicana, C. por A.	\$ 2,788	8,834	5,689	3,309	9,933	503				
	Indusmin Limited (note 7)	\$ 1,251	2,019	2,821	1,307	1,287	1,290				
	Integrated nickel operations	\$ (21,629)	4,727	(5,390)	16,395	19,425	5,118				
	Oamites Mining Company (Prop.) Limited ..	\$ (336)	128	739	1,433	2,406	205				
	United Keno Hill Mines Limited	\$ 1,168	841	1,422	2,946	1,159	(350)				
	Wesfrob Mines Limited	\$ (2,211)	(337)	(1,361)	539	2,753	(2,490)				
	Others (note 7)	\$ (640)	(853)	503	451	756	(30)				
	Earnings (loss) (before extraordinary item) ..	\$ (29,223)	14,703	3,221	30,595	49,343	5,165				
FINANCIAL POSITION (000's)	Working capital —										
	Integrated nickel operations (note 8)	\$ 171,158	82,461	98,816	137,163	116,582	71,137	67,611			
	Falconbridge Dominicana, C. por A. (note 2)	\$ 42,785	37,410	33,703	28,941	36,214	25,680	26,601			
	Falconbridge Copper Limited	\$ 32,696	24,409	20,768	18,840	25,776	14,044	15,340			
	Consolidated total	\$ 252,411	152,083	164,102	195,467	186,640	113,463	117,954			
	Property, plant and equipment (net) —										
	Producing	\$ 304,768	255,217	283,611	282,803	303,767	330,965	160,132			
SHAREHOLDERS' DATA	Non-producing	\$ 150,356	167,654	143,178	137,504	105,021	86,507	312,799			
	Long-term debt	\$ 291,394	223,715	255,121	274,616	288,493	301,921	293,336			
	Shareholders' equity (000's)	\$ 383,127	321,249	311,433	312,437	291,887	242,099	289,832			
	Amount per convertible share	\$ 61.50	64.13	62.21	62.47	58.37	48.42	57.97			
	Dividends paid per convertible share	\$ 0.50	1.00	1.00	2.00	1.00	1.00	2.75	3.50	3.50	3.50
EXPLORATION, RESEARCH AND DEVELOPMENT (000's)	Number of convertible shares outstanding at end of year (note 3) (000's)	5,010	5,009	5,006	5,001	5,001	5,000	5,000	4,955	4,946	4,905
	Number of convertible shareholders	9,150	9,788	10,732	11,205	11,104	12,254	12,178	12,273	12,687	13,799
	Preference shares (000's)	\$ 75,000									
CAPITAL EXPENDITURES (000's)	Exploration	\$ 9,726	8,325	7,826	11,432	8,895	6,768	10,246	9,307	6,036	4,659
	Research and development	\$ 3,844	3,769	4,100	4,382	3,304	2,546	3,311	4,208	2,683	2,207
METAL SALES (000's pounds)	Expenditures (net) on property, plant, equipment, development and preproduction —										
	Integrated nickel operations (note 8)	\$ 62,267	27,954	38,161	30,442	21,156	36,717	59,474	51,567	37,245	40,294
	Falconbridge Dominicana, C. por A.RD\$	\$ 2,908	1,490	1,934	5,571	2,123	10,400	67,887	67,540	17,774	2,599
	Falconbridge Copper Limited (note 4) ..	\$ 5,415	8,903	7,400	14,968	9,076	3,910	5,968	4,946	1,778	1,692
	Consolidated total	\$ 78,848	44,188	56,367	59,315	40,632	61,804	144,862			
ORE RESERVES (000's tons)	Integrated nickel operations —										
	Nickel	32,047	80,176	61,524	89,464	99,408	89,665	85,864	84,141	80,647	70,712
	Copper	42,677	34,076	40,713	53,981	53,725	56,464	60,985	56,922	49,456	39,787
	Falconbridge Nickel Mines Limited — Nickel in ferronickel (note 5)	43,394	59,781	50,270	73,828	67,644					
	Falconbridge Copper Limited (note 4) ..	92,369	82,939	77,503	56,911	80,935	80,870	62,012	50,320	52,752	56,817
	Zinc	89,032	73,430	73,767	30,838	37,950	38,218	14,569	10,648	12,249	24,612
ORE RESERVES (000's tons)	Falconbridge Nickel Mines Limited	80,670	83,405	89,099	90,578	92,798	92,646	99,933	97,405	94,217	91,639
	Falconbridge Dominicana, C. por A.	70,000	72,500	63,700	66,000	68,500	70,800	72,300	62,800	62,800	62,800
	Falconbridge Copper Limited (note 4)	8,653	7,187	9,234	11,004	11,287	11,724	11,543	9,777	7,921	7,986

- Notes: 1. See note 8, page 19, of the notes to consolidated financial statements.
2. See note 10, page 20, of the notes to consolidated financial statements.
3. Includes shares held by consolidated subsidiaries.
4. This company was formed through an amalgamation of a number of companies in 1971. For comparative purposes the figures have been presented as if the amalgamation had been in effect throughout 1968 to 1971.
5. Ferronickel sales to customers, see note 3, page 26, of the notes to statement of supplementary information.
6. Before interest in earnings of Alminex Limited and United Keno Hill Mines Limited which are shown separately.
7. For comparative purposes the 1972 to 1975 figures have been restated to combine the contribution of Indusmin and Fahralloy Canada Limited. In 1976, Fahramet Limited, a subsidiary of Indusmin Limited acquired the operating assets of Fahralloy Canada Limited.
8. Includes both the Integrated nickel operations and Company's corporate operations, see note 2, page 26, of the notes to statement of supplementary information.

FALCONBRIDGE NICKEL MINES LIMITED

ACCOUNTING FOR INFLATION

The following unaudited replacement cost data, which were extracted from the Company's 1977 United States Securities and Exchange Commission (S.E.C.) Form 10-K filing, reflect the estimated current replacement cost of inventories and productive capacity of certain of the Falconbridge group companies compared with the historic cost of these assets at December 31, 1977.

Because of the subjectivity and inherent imprecision of the estimated replacement cost data they should only be viewed as indicative of the order of magnitude of the impact of inflation.

(a) Inventories (\$000's)

	Integrated nickel operations	Other subsidiary companies	Total
Inventory of metals:			
Historic cost	\$ 107,857	\$ 27,248	\$ 135,105
Replacement cost	\$ 151,242	\$ 33,914	\$ 185,156
Inventory of supplies:			
Historic cost —			
Total	\$ 13,628	\$ 19,578	\$ 33,206
Deduct:			
Slow moving and capital items	1,705	149	1,854
Consumables	\$ 11,923	\$ 19,429	\$ 31,352
Replacement cost — Consumables	\$ 12,706	\$ 20,183	\$ 32,889

(b) Productive capacity (\$000's)

	Total in the consolidated balance sheet	Historic Cost Amounts for which replace- ment cost data have not been provided (i)	Amounts for which replace- ment cost data have been provided (ii)	Estimated replacement cost (ii)
Property, plant and equipment:				
Producing assets —				
Plant and equipment at cost	\$ 509,332	\$ 78,451	\$ 430,881	\$ 979,852
Accumulated depreciation	\$ 309,150	\$ 61,656	\$ 247,494	\$ 574,359

(i) Generally represents the assets of subsidiaries' operating mines which are expected to have short (10 years or less) remaining productive lives.

(ii) Estimated replacement cost —

	Plant and equipment, at cost	Accumulated depreciation	Plant and equipment, net
Integrated nickel operations —			
Historic cost	\$ 245,954	\$ 177,064	\$ 68,890
Replacement cost	595,520	427,477	168,043
*Other subsidiaries —			
Historic cost	184,927	70,430	114,497
Replacement cost	384,332	146,882	237,450
Total —			
Historic cost	\$ 430,881	\$ 247,494	\$ 183,387
Replacement cost	\$ 979,852	\$ 574,359	\$ 405,493

* Includes Falconbridge Dominicana, C. por A.; Indusmin Limited; and Lakefield Research of Canada Limited.

To arrive at replacement cost of productive fixed assets, current estimates of costs to construct or purchase were applied or other methods such as calculating replacement cost based on cost per unit of productive capacity were employed. Indices published by governmental and private organizations were applied to the historic cost of recently acquired assets.

FALCONBRIDGE NICKEL MINES LIMITED

ACCOUNTING FOR INFLATION (continued)

- (c) Depreciation expense for 1977 which would have been recorded if it were estimated on the basis of the average current replacement cost of productive capacity is as follows:

	Depreciation expenses (iv)		
	Historic cost basis	Replacement cost basis	
	(ii)	(\$000's)	(iii)
Total charged to earnings	\$ 32,297		
Deduct amounts related to assets for which replacement cost data have not been provided.....	5,344		
Amounts related to assets for which replacement cost data have been provided (i)	<u>\$ 26,953</u>		<u>\$ 68,441</u>
(i) Integrated nickel operations	\$ 16,860		\$ 48,752
*Other subsidiaries	10,093		19,689
Total.....	<u>\$ 26,953</u>		<u>\$ 68,441</u>

*Falconbridge Dominicana, C. por A.; Indusmin Limited; and Lakefield Research of Canada Limited.

(ii) The method of calculation is detailed under note E of the Accounting Policies on page 13.

(iii) Calculated using a straight-line method.

(iv) The higher estimated depreciation expense under the S.E.C.'s productive capacity replacement cost basis would probably be partially offset by operational economies.

- (d) The difference between the replacement value and historic value of cost of sales is immaterial. Under the "last-in, first-out" method of costing the inventory current costs are reflected in the consolidated statement of earnings for the Integrated nickel operations. The other subsidiaries generally recognize revenues when metals are produced (consequently, the recorded revenues are matched with current costs) or have immaterial product inventories or differences between replacement and historic cost of sales.

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FALCONBRIDGE NICKEL MINES LIMITED

THE INTEGRATED NICKEL OPERATIONS

Earnings

A loss of \$21,629,000 was incurred by the Integrated Nickel Operations in 1977, compared with earnings of \$4,727,000 in 1976. The loss was a result of low nickel sales, weak metal prices and non-recurring costs. Sales of nickel amounted to 32,047,000 pounds, a drop of 60 per cent from sales of 80,176,000 pounds in 1976. Copper sales, however, increased by 25 per cent, rising from 34,076,000 pounds in 1976 to 42,677,000 pounds in 1977. The depressed metal prices, expressed in United States currency, were offset in Canadian dollar terms, as a result of the weakness in the Canadian dollar. Non-recurring costs resulting from the curtailment of operations at Sudbury, and the write-off of residual asset values upon the termination of operations at the Manibridge Mine in Manitoba, contributed \$10,912,000 to the loss incurred by the Integrated Nickel Operations in 1977.

The Company has had under study for some time the write-off rates for capital, preproduction and development expenditures. As a result of this study, the write-off rates were changed on July 1, 1977 to reflect the economic lives of the assets. The effect of this change was a reduction of \$3,538,000 in the 1977 depreciation, depletion, development and preproduction write-offs.

Operations Review

General

Sudbury Operations produced at an annual rate of 77,000,000 pounds of nickel for the first eight months of the year while operating on only one of the two smelter furnaces and using oxygen enrichment of the blast air. During August, action was taken to reduce production in the light of increasing inventories of finished nickel. All operations were shut down from September 11 to October 9, for a four-day weekend over the Remembrance Day holiday, and during the week between Christmas and New Year's Day. In addition, the work force was reduced by 465 to 3,623 employees. The

Falconbridge and Strathcona concentrators' operations were reduced to a five-day-a-week schedule and the North Mine was being prepared for shut-down and placement on standby status early in 1978. Further work force reductions, involving approximately 750 jobs, were announced in December to take effect in April, 1978. This will reduce the employment level at the Sudbury Operations from 4,001 employees at the end of 1976 to 3,623 employees at the end of 1977 and to approximately 2,900 employees when the curtailment is fully effected. At that time, the production level will be approximately 50 per cent of capacity.

During the year, discussions with the Ontario Government continued regarding legislation concerned with refining in Canada, the disallowance of the Company's Norwegian Refinery costs for mining tax purposes after the expiry on December 31, 1978 of the current exemption, and the limitation imposed on the production from Sudbury District ores of 85,000,000 pounds of nickel per annum which can be refined off-shore. By year-end, the Company had not received the Government's response to its proposals on these matters.

Ore delivered during the year to treatment plants from Company mines in the Sudbury area amounted to 2,865,000 tons compared with 3,219,000 tons delivered in 1976. Both the Hardy Pit and Longvack South Mine were closed during the year upon exhaustion of their ore reserves. Lockerby Mine was declared "in production" in March, 1977 upon exceeding 60 per cent of its rated production capacity. East, Fecunis and Onaping Mines, which were temporarily closed in 1976, remained on standby throughout the year. Ore produced from Manibridge Mine in Manitoba totalled 51,000 tons prior to exhaustion of ore and mine closure in April.

Falconbridge Nikkelverk Aktieselskap

The operating rate of the refinery in Norway was below capacity because of the continuing low demand for refined nickel.

The plant program, commenced in 1974 to improve working conditions and operating efficiency, was continued on an extended schedule. Completion is now expected in 1980. A milestone in this program during 1977 was the completion of the changeover from the old Hybinette electrolytic cells to a new electrowinning system.

Ore Reserves

Some marginal ore has been removed from reserves because of increased costs and low metal prices. Total proven and probable reserves at the Company's

Sudbury Operations at year-end, including appropriate allowance for dilution in mining, were as follows:

Year	Tons of Ore	Tons of Contained Metal		Average Grade (%)	
		Nickel	Copper	Nickel	Copper
1977	80,670,000	1,177,000	624,000	1.46	0.77
1976	83,405,000	1,214,000	567,000	1.46	0.68

Capital Programs

Construction continued during the year on the Smelter Environmental Improvement Program at Falconbridge, Ontario. At year-end, expenditures totalled \$65,977,000 and construction was 90 per cent complete. One furnace is scheduled to start up in April, 1978.

Expenditures of \$8,389,000 were incurred during the year in developing the Fraser Mine. Fraser No. 1 Shaft was completed to a depth of 5,250 feet. Underground development was commenced in August, 1977. The sinking of the ventilation shaft was deferred at year-end and lateral development is continuing on a reduced basis.

Expenditures (net) on mines and plants for 1977, with comparative figures for 1976, are set out in the table below:

	1977	1976
Property, plant and equipment	\$48,504,000	\$14,099,000
Development and preproduction	13,763,000	13,855,000
	<u>\$62,267,000</u>	<u>\$27,954,000</u>

Other Activities

The damage sustained at the Nickel-Iron Pellet Refinery on October 26, 1976 was repaired by Sudbury Metals Company under the terms of the lease agreement. Sudbury Metals Company had not resumed production at year-end 1977 due to low product prices.

FALCONBRIDGE NICKEL MINES LIMITED

MARKETING ACTIVITIES

FALCONBRIDGE INTERNATIONAL LIMITED

MARKETING REVIEW

Nickel

Until mid-1977, the Company anticipated an improvement in nickel demand after the normal mid-year slowdown; however, demand continued to decrease as the year progressed and producer inventories increased substantially. Because of the steadily deteriorating market conditions throughout 1977, non-Communist world producer shipments decreased to about 900,000,000 pounds, the lowest level since 1971. Although there was some improvement in nickel demand related to the automotive and residential construction sectors in the United States, manufacturing industries, notably basic steel, experienced severe difficulties. The United States economy is expected to show modest growth in 1978. In Europe, industrial production continued to decline and the short-term outlook remains poor. In spite of limited government stimulation programs to promote capital investment, business continues to defer investment. During the latter part of 1977, the major nickel producers began significant production curtailments to bring short-term supply and demand into balance and reduce inventories.

Extreme competition in the nickel industry caused widespread price cutting in 1977. At 1977 price levels, nickel production throughout the non-Communist world was not profitable for most producers. Production curtailments initiated in 1977 must continue throughout 1978 to ensure that stable market conditions are achieved and maintained. The producers' published base prices for electrolytic nickel and ferronickel were withdrawn at mid-year as price discounting intensified. Falconbridge reintroduced published base prices in late November, effective through the first quarter of 1978. Nickel markets are expected to remain very competitive through 1978.

Copper

The U.S. equivalent of the London Metal Exchange "spot" or cash price for copper wirebars averaged U.S. 59.5 cents per pound in 1977 compared with U.S. 64 cents per pound in 1976. Prices ranged from a high of U.S. 70 cents per pound in March, 1977, to a low of U.S. 51 cents per pound in August, 1977. This price performance reflected the failure of the world's major copper exporting nations to reduce production in the face of mounting inventories of refined copper.

It is estimated that 1977 refined copper consumption in the non-Communist world rose by 5 per cent compared with 1976; however, refined production exceeded consumption, resulting in an increase in producer inventories and in commodity exchange stocks. These stocks have been at historically high levels since late 1975 and account for the depressed level of copper prices over the last three years. A small reduction in total stocks is possible in 1978, assuming a reasonable level of growth in the major copper consuming nations. In view of the excessive level of inventories, little change is expected in the 1978 copper price compared with 1977.

Other Metals

The producers' average price for cobalt increased to U.S. \$5.42 per pound in 1977 from U.S. \$4.17 per pound in 1976.

Following mediocre performances throughout most of 1977, precious metal prices improved sharply during the last quarter of the year, primarily because of renewed uncertainty in world currency markets. The outlook for most precious metal markets is encouraging.

Services

In addition to marketing nickel, ferronickel, copper, cobalt and various by-products, Falconbridge International Limited and the other commercial companies in the Falconbridge Group negotiate sales, purchasing and toll refining contracts covering a variety of ferrous and non-ferrous metal concentrates, refined precious metals and other raw materials. Products handled include copper, cobalt, nickel,

zinc, lead and iron ore concentrates, and precious metal semi-refined materials as well as refined gold and platinum group metals. New areas of commercial interest are also being investigated by the Marketing group.

Other marketing support to the Falconbridge Group during the year included customer service, product and market research, technical service, transportation and distribution management and marketing communications.

Organization

In October, 1977, Falconbridge Canada, the Canadian Marketing division of Falconbridge Nickel Mines Limited, was formed to market in Canada the products of the Falconbridge Group of companies. Falconbridge Canada joined the other Falconbridge commercial and marketing companies which include Falconbridge International Limited based in Hamilton, Bermuda; Falconbridge U.S. Incorporated, which conducts marketing operations in the United States from Pittsburgh; and Falconbridge Europe, S.A., serving customers in Europe from its office in Brussels, Belgium.

Management

Falconbridge International Limited

President	W. G. Dahl
Executive Vice-President	E. H. Holm

Falconbridge Canada

Canadian Marketing Division of
Falconbridge Nickel Mines Limited

President	M. O. Pearce
Vice-President Sales	T. J. Desanti

Falconbridge U.S. Incorporated

General Manager	R. W. Bain
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Falconbridge Europe, S.A.

General Manager	J. H. Lilly
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FALCONBRIDGE NICKEL MINES LIMITED

MAJOR SUBSIDIARY AND ASSOCIATED COMPANIES

Falconbridge Copper Limited

Net earnings for the year were \$7,301,000 (56 cents per share), compared with \$4,858,000 (37 cents per share) in 1976. Improved earnings were due to increased production of all metals and close control of costs, which rose only 4 per cent over 1976. Working capital increased \$8,287,000 during the year to \$32,696,000 after payment of a dividend amounting to \$1,297,000, net additions to fixed assets of \$879,000 and net preproduction and development expenditures for the Cooke and Corbet Mines of \$4,536,000.

Total metal production from all three divisions of the company was 92,369,000 pounds of copper, 89,032,000 pounds of zinc, 42,000 ounces of gold and 2,836,000 ounces of silver. This compares with 82,939,000 pounds of copper, 73,430,000 pounds of zinc, 25,000 ounces of gold and 1,813,000 ounces of silver in 1976.

Lake Dufault Division

Operating profit for the year was \$3,697,000 compared with \$5,735,000 in 1976. Lower copper production and zinc prices were primarily responsible for this decrease.

Tonnage milled totalled 430,000 tons of 3.27 per cent copper and 3.74 per cent zinc compared with 505,000 tons of 3.10 per cent copper and 3.45 per cent zinc in 1976. Production of copper was 26,572,000 pounds compared with 29,553,000 pounds in 1976, whereas zinc production was 25,684,000 pounds compared with 27,389,000 pounds in 1976. Operating costs were \$9,326,000 in 1977 compared with \$9,758,000 in 1976.

The Corbet shaft reached a depth of 3,869 feet below surface in 1977 and the completion depth of 3,990 feet was reached in January 1978.

Ore reserves at the end of 1977 were calculated to be 3,985,000 tons (including 2,929,000 tons in the Corbet Mine) with average grades of 3.22 per cent copper and 2.85 per cent zinc.

Opemiska Division

An operating loss of \$423,000 was incurred in 1977 compared with a profit of \$1,050,000 in 1976. A slight decrease in the price received for copper, combined with higher operating costs and depreciation charges, more than offset improved prices for gold and silver and higher gold production.

The Cooke Mine commenced

production in July 1977 with a gold content significantly greater than that produced from the Springer and Perry Mines.

Production of copper during the year amounted to 40,307,000 pounds from 1,022,000 tons of ore, averaging 2.05 per cent copper. Production of copper during 1976 was 40,049,000 pounds from 1,044,000 tons of ore, averaging 2.01 per cent copper.

Ore reserves at December 31, 1977 for the Springer, Perry and Cooke Mines totalled 3,764,000 tons grading 2.44 per cent copper.

Sturgeon Lake Joint Venture

During the fourth quarter of the year, the joint venturers completed the recovery of their \$24,000,000 investment in the venture. Prior to recovery of the investment, Falconbridge Copper received 93.4 per cent of the proceeds of the joint venture. After recovery of this investment, proceeds will be distributed in proportion to the participation of the joint venturers, that is 80 per cent Sturgeon Lake Mines Limited, 13.4 per cent Falconbridge Copper Limited and 6.6 per cent NBU Mines Limited. Falconbridge Copper owns 67 per cent of the issued shares of Sturgeon Lake Mines Limited. The financial statement of Sturgeon Lake is consolidated with that of Falconbridge Copper.

The joint venture profit increased from \$6,811,000 in 1976 to \$12,892,000 in 1977. Falconbridge Copper's share of these profits, after all charges, amounted to \$6,275,000 in 1977 compared with \$1,215,000 in 1976. This increase was due to milling a slightly higher tonnage at grades significantly higher in copper, zinc and silver than in 1976. Recovery of all metals has been greatly increased by selective mining, blending and improved ore beneficiation procedures.

Tonnage milled was 423,000 tons compared with 416,000 tons in 1976. Production in 1977 at Sturgeon Lake was 67,824,000 pounds of zinc, 27,292,000 pounds of copper, 3,144,000 pounds of lead and 2,152,000 ounces of silver. This production compares with 49,295,000 pounds of zinc, 14,276,000 pounds of copper, 1,172,000 pounds of lead and 1,067,000 ounces of silver in 1976.

Ore reserves at December 31, 1977 were 903,600 tons grading 2.59 per cent copper, 9.15 per cent zinc, 1.13 per cent lead and 5.31 ounces of silver per ton.

	As at December 31, 1977		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	12,970,125	6,509,696	50.2%
Financial	Year ended December 31		
	1977	1976	
Revenue from metal shipments	\$107,455,000	\$89,163,000	
Earnings before amortization and depreciation	13,850,000	11,707,000	
Income and mining taxes	5,304,000	2,947,000	
Earnings after all charges	7,301,000	4,858,000	
Dividends paid	1,297,000	1,297,000	
Working capital	32,696,000	24,409,000	
Falconbridge interest* in		Per share of Falconbridge	
Earnings after all charges	\$ 3,665,000	73¢	
Dividends paid	651,000	13	
Excess of earnings over dividends	\$ 3,014,000	60¢	

* Before consolidation adjustments

Management

Chairman of the Board	Marsh A. Cooper
President and Chief Executive Officer	L. C. Kilburn
Manager, Opemiska Division	P. P. Dessureault
Manager, Lake Dufault Division	W. R. Wright
Manager, Sturgeon Lake Joint Venture	H. R. Graham

FALCONBRIDGE NICKEL MINES LIMITED

MAJOR SUBSIDIARY AND ASSOCIATED COMPANIES

New Quebec Raglan Mines Limited

The company's wholly-owned subsidiary, Raglan Quebec Mines Limited, holds exploration permits totalling 300 square miles and 157 mineral claims located in the Ungava region of Quebec.

In 1977 an airborne photographic survey was completed over the property. Topographical maps are presently being prepared to facilitate a program to geographically re-map the property in detail and correlate the information with the present underground data.

Because of the world's current oversupply of nickel, it cannot be predicted with certainty when the expenditures on the properties will be recovered by charges against income from future mining operations.

Expenditures to date on the property have amounted to \$28,464,000.

Estimated ore reserves are 16,050,000 tons grading 2.58 per cent nickel and 0.71 per cent copper.

Capitalization	As at December 31, 1977		
	Outstanding	Held by Falconbridge	
New Quebec Raglan Mines Limited			
Common shares	7,763,871*	5,300,067*	68.3%
Raglan Quebec Mines Limited			
Preferred shares — 6%	7,500,000	7,500,000	100%
— 8%	7,500,000	7,500,000	100%
— 6¾%	2,395,000**	2,395,000**	100%
Common shares	4,005†		

* Includes 3,577 common shares to be issued.

** Includes 134,000 6¾% preferred shares to be issued.

† Wholly-owned by New Quebec Raglan Mines Limited

Management

President J. R. Smith

Blanket Mine (Private) Limited

Net earnings for the year were \$545,000 compared with \$433,000 in 1976. The improved earnings result from the increased price of gold which averaged 20 per cent higher in 1977 than in the previous year. Revenue from metals produced amounted to \$3,348,000 in 1977.

Tons milled in 1977 at the Blanket Mine increased by 11,000 metric tons but gold production dropped by 1,025 ounces due to the lower grade of ore processed. It is intended to maintain gold production at the annual rate of approximately 18,000 ounces in 1978.

Underground exploration at the RHA wolfram property has proved the continuity of the tungsten-bearing veins beneath the old workings. Milling of this new ore will commence shortly.

The future of these operations depends on the stability of the political situation in Rhodesia and the availability of technical staff.

Capitalization	As at December 31, 1977		
	Outstanding	Held by Falconbridge*	
Common shares	9,208	9,208	100%

* Through wholly-owned subsidiary Ventures of Africa Limited

Production	Year ended December 31	
	1977	1976
Blanket		
Ore milled — tons (metric)	154,000	143,000
Gold produced — ounces	18,424	19,449
RHA		
Ore milled — tons (metric)	50,000	59,000
Tungsten concentrates — pounds	90,000	97,000

Financial	(Canadian dollars)	
	1977	1976
Net revenue from metals produced	\$3,348,000	\$2,398,000
Earnings before depreciation	727,000	548,000
Earnings after all charges	545,000	433,000
Dividends paid	320,000	78,000
Working capital	593,000	460,000

Falconbridge interest* in	Per share of Falconbridge	
	1977	1976
Earnings after all charges	\$ 545,000	11¢
Dividends paid	320,000	6
Excess of earnings over dividends	\$ 225,000	5¢

* Only dividends received by Falconbridge are reflected in consolidated earnings.

Management

Managing Director H. H. Bird
 Mine Manager A. Ryan

Falconbridge Dominicana, C. por A.

Net earnings for the year were RD \$3,242,000 of which RD \$162,000 were transferred to the legal reserve. (RD \$1.00 equals U.S. \$1.00 at the official rate of exchange.) This compares with net earnings of RD \$11,312,000 in 1976. The reduced earnings result from a decrease of approximately 20 per cent in the shipments of contained nickel, a lower realized price for the ferronickel shipped and the continuing inflationary pressures on all costs.

Total shipments in 1977 were 45,477,000 pounds of contained nickel compared with 56,471,000 pounds in 1976. Shipments of 14,194,000 pounds in the second half of the year showed a marked decline from the 31,283,000 pounds shipped in the first half of 1977. As a consequence there was a substantial accumulation of product inventory and by year end a further reduction in production could not be avoided. On January 12, 1978, the company announced a reduction of its labour force by approximately 550 employees to 1,578, of whom 1,515 were Dominican and 63 were expatriate personnel.

As a result of the reduced revenue from metal shipments and the payment of principal and interest on the long-term debt amounting to RD \$33,025,000 there was a net outflow of funds during the year of RD \$11,308,000. The company completely retired the debt represented by the 8% Series B Demand Mortgage Notes and thus the burden of interest payments and principal repayments in 1978 will be substantially reduced.

The long-term debt at year end was RD \$113,941,000 exclusive of RD \$10,522,000 which matures in 1978 and which is shown as a current liability. Included in the long-term debt is an unrealized loss of RD \$4,538,000 resulting from conversion of the non-U.S. portion of the loan from the International Bank for Reconstruction and Development (World Bank) at year-end exchange rates.

The extremely competitive conditions which prevailed in world markets in late 1976 continued throughout 1977 with price competition intensifying during the latter half of the year. By mid-1977 the published producer price had ceased to be meaningful and its publication was suspended. On November 29, 1977, Falconbridge Nickel Mines Limited re-established a published price applicable through the first quarter of 1978 for ferronickel of U.S. \$2.00 per pound of nickel content delivered to the customer's plant. This price applies to all

world markets except the Far East where prices will be c.i.f. domestic port.

Mine equipment availability and performance were more than adequate to meet the restricted level of plant production. The process plant together with the ancillary support operations continued to operate satisfactorily.

Major programs devoted to financial and operational control contributed materially to the mitigation of the adverse impacts of the recession and inflation. Expenditures on property, plant and equipment in 1977 were RD \$2,908,000.

The ore reserves at the end of 1977 were 70,000,000 dry short tons grading 1.64% nickel.

	As at December 31, 1977	
	Outstanding	Held by Falconbridge
Capitalization		
Common shares	3,000,000	1,971,524 65.7%
Production	Year ended December 31	
	1977	1976
Shipments of ferronickel — nickel content in pounds	45,477,000	56,471,000
Financial (RD \$1.00 equals U.S. \$1.00)		
Revenue from metal shipments	RD\$ 93,046,000	RD\$117,986,000
Earnings before interest on debt, depreciation and amortization	25,395,000	40,338,000
Earnings after all charges	3,242,000	11,312,000
Working capital	39,097,000	37,410,000
Long-term debt (excluding RD\$10,522,000 in current liabilities)	113,941,000	122,567,000
Falconbridge interest* in		Per share of Falconbridge
Earnings after all charges	Cdn.\$ 3,086,000	62¢
* Before consolidation adjustments.		
Management		
President	Marsh A. Cooper	
Executive Vice-President and General Manager	I. H. Keith	

FALCONBRIDGE NICKEL MINES LIMITED

MAJOR SUBSIDIARY AND ASSOCIATED COMPANIES

Giant Yellowknife Mines Limited

With a record tonnage throughput, continuation of cost control measures, and an increase in the annual average price of gold from \$122 per ounce to \$163 per ounce, net earnings rose to \$2,451,000 from the \$186,000 loss incurred in 1976.

Production from Giant Yellowknife Mines Limited and its subsidiaries, Lolor Mines Limited and Supercrest Mines Limited, totalled 446,000 tons, an increase of 4 per cent over the previous record of 428,000 tons established in 1976. This was achieved by a heavy contribution from open pits which amounted to 41 per cent of the total tonnage. The average grade of ore mined fell from 0.281 ounce gold per ton to 0.271 ounce gold per ton and as a result bullion output of 106,143 ounces was down 571 ounces from 1976.

Despite the higher throughput, total operating costs were only 2 per cent higher than in 1976. A major portion of the cost increase was attributable to power rates which were raised 32 per cent on April 1, 1977.

Ore reserves as of December 31, 1977 were 1,004,000 tons at a grade of 0.34 ounce gold per ton compared with 1,505,000 tons of the same grade at year-end 1976. Although the increased gold price enabled some additions to reserves, these were offset by losses due to lack of

continuity in some stoping blocks or reinterpretation of ore contours. Only 74,000 new tons were outlined by diamond drilling. Exploration for additional ore is being concentrated at the north end of the property and at depth

where the potential remains favourable.

Outside exploration work for other metals continued on six major projects. Three programs were concluded with negative results. Work is being continued on the remaining three projects.

	As at December 31, 1977		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	4,303,050	824,413	19.2%
Production (Consolidated)	Year ended December 31		
	1977	1976	
Tons milled	446,000	428,000	
Gold produced — ounces	106,000	107,000	
Financial (Consolidated)			
Revenue from metals produced	\$17,365,000	\$13,138,000	
Earnings before amortization and depreciation	3,339,000	525,000	
Earnings (loss) after all charges	2,451,000	(186,000)	
Dividends paid — 15¢ per share	645,000		
— 10¢ per share		430,000	
Working capital	8,838,000	6,527,000	
Falconbridge interest* in			Per share of Falconbridge
Earnings after all charges	\$ 470,000		9¢
Dividends paid	124,000		2
Excess of earnings over dividends	\$ 346,000		7¢

*Only dividends received by Falconbridge are reflected in consolidated earnings.

Management

President and Managing Director	D. J. Emery
General Manager	W. A. Moore

Western Platinum Limited

The loss for the year amounted to R475,000 compared with a profit of R1,727,000 in 1976. Revenue from metal sales amounted to R20,455,000, an increase of less than 1 per cent over 1976 revenue.

Operating costs continued to rise throughout the year due to higher power costs, labour rates, the cost of stores, off-mine refining costs and freight charges. Mine unit costs in 1977 were 12.7 per cent higher than in 1976. Cost of sales increased by 14.4 per cent.

The labour shortages experienced in 1976 were alleviated during 1977 and by mid-year the mine operated at its full complement of approximately 4,500 employees. However, the shortages of labour resulted in lower production rates and higher training costs. Operational problems in the concentrator were overcome by mid-year and a marked improvement in metal recovery was evident thereafter.

The cash position of the company was strained during the year by the operating loss and the increased level of nickel inventories. In order to correct this

situation, the development rate was reduced, capital expenditures curtailed, reduced refinery charges were negotiated (effective from July, 1977) and export finance advances were arranged. In addition, towards year-end, the directors decided to reduce the planned throughput rate by 25 per cent to 80,000 tons monthly.

Capital expenditures for the year totalled R435,000 compared with R1,314,000 in 1976. Principal expenditures included development on the East Incline and Noel Shaft Sub-Incline, and underground and surface plant and equipment.

There was no reduction of the long-term debt which remains at R17,800,000.

	As at September 30, 1977		
	Outstanding	Held by Falconbridge	
Capitalization			
Ordinary shares	10,000,000	2,500,001	25%
Long term debt	R17,800,000	R4,450,000	25%
Production	Year ended September 30		
	1977	1976	
Tons milled — metric	1,304,000	1,269,000	
Platinum group metals — ounces	131,000	133,000	
Nickel — pounds	3,617,000	3,549,000	
Financial			
1 Rand = Cdn. \$1.24 at September 30, 1977			
= Cdn. \$1.12 at September 30, 1976			
Revenue from metal sales	R20,455,000	R20,264,000	
Earnings (loss) for the year	(475,000)	1,727,000	
Working capital	9,546,000	10,558,000	
Management			
Joint Managing Directors	S. C. Newman		
	R. W. Banghart		

Indusmin Limited

Consolidated sales of \$42,442,000 were at record levels, 9 per cent greater than in 1976. Sales from the Canadian industrial minerals operations, included in consolidated sales, were also a record at \$20,000,000, an increase of 17 per cent over 1976.

Consolidated net earnings after tax amounted to \$2,048,000 in 1977 compared with \$2,891,000 in 1976. The decrease in earnings was due primarily to a decrease in sales volume and highly competitive pricing in the sand casting operations of wholly-owned Fahramet Limited.

Sales of steel castings from Fahramet Limited were \$16,000,000 in 1977, 7 per cent below 1976, reflecting the continuing weakness of the Canadian capital market. There has been no indication of an improvement in the market and a major cost reduction program, including a 20 per cent reduction in personnel, was instituted during the second half of 1977.

Sales of limestone aggregates in 1977 slightly exceeded the 1976 level. Construction activity in the Toronto region continued at low levels and the outlook is for little improvement.

Lawson-United Feldspar and Mineral Company, Inc. of Spruce Pine, North

Carolina was acquired, effective July 1, 1977 and contributed marginally to sales and profits. This operation produces feldspar, mica and silica. The feldspar products are used for the same applications as nepheline syenite.

Lawson-United sells feldspar in the south-eastern United States and, therefore, geographically expands on Indusmin's nepheline syenite sales activities in the northeast and mid-west areas of the country.

	As at December 31, 1977		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	1,167,901	806,030	69%
Financial	Year ended December 31		
	1977	1976	
Sales	\$42,442,000	\$38,831,000	
Earnings before amortization and depreciation	4,615,000	5,285,000*	
Earnings after all charges	2,048,000	2,891,000*	
Dividends paid — 85¢ per share	993,000		
— 81¢ per share		946,000	
— preferred shares		101,000	
Working capital	5,616,000	3,789,000*	
* Restated			
Falconbridge interest* in			Per share of Falconbridge
Earnings after all charges	\$ 1,413,000	28¢	
Dividends paid	685,000	13	
Excess of earnings over dividends	\$ 728,000	15¢	
* Before consolidation adjustments			
Management			
President and			
Managing Director	Marsh A. Cooper		
Executive Vice-President	C. M. Woodruff		

Oamites Mining Company (Proprietary) Limited

There was a loss of \$449,000 in the year compared with a profit of \$195,000 in 1976. This decline is mainly attributable to the lower price of copper and higher treatment charges. Cash generation, after fixed asset additions of \$447,000 and dividend payments of \$160,000, amounted to \$720,000.

Copper production in 1977 amounted to 15,209,000 pounds, up by 1,135,000 pounds from 1976 due to the improvement in grade from the 30 level block and to the 3 per cent increase in ore milled. Proven and probable ore reserves at December 31, 1977 amounted to 3,534,000 metric tons, grading 1.19 per cent copper and 0.50 ounce of silver per metric ton, down 517,000 metric tons from 1976.

	As at December 31, 1977		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	253,680	190,000	74.9%
Production	Year ended December 31		
	1977	1976	
Tons ore milled (metric)	620,000	601,000	
Mill head grade (% copper)	1.20	1.14	
Mill recovery (%)	92.52	92.99	
Concentrates produced (metric dry tons)	17,000	20,000	
Recoverable copper — pounds	15,209,000	14,074,000	
Financial			
Revenue from sales of concentrates	\$10,494,000	\$10,060,000	
Earnings before amortization and depreciation	611,000	1,205,000	
Earnings (loss) after all charges	(449,000)	195,000	
Dividends paid	160,000	757,000	
Working capital	1,383,000	1,494,000	
Falconbridge interest* in			Per share of Falconbridge
Loss after all charges	\$ 336,000	7¢	
Dividends paid	120,000	2	
Excess of dividends over loss	\$ 456,000	9¢	
* Before consolidation adjustments			
Management			
Chairman and			
Managing Director	H. H. Bird		
General Manager	R. W. Banghart		
Mine Manager	D. P. Hugo		

FALCONBRIDGE NICKEL MINES LIMITED

MAJOR SUBSIDIARY AND ASSOCIATED COMPANIES

United Keno Hill Mines Limited

Net earnings for the year were \$2,412,000 or 98 cents per share, up by \$674,000 from 1976 when a two month strike by employees affected performance. Revenue from metal shipments increased by \$4,790,000 from 1976 but this was largely offset by sharply higher costs and increased mining and development activities. These activities included sinking a decline to the fourth level at the Husky Mine and development work on several small, new projects.

Proven and probable ore reserves declined from 182,000 tons grading 43 ounces of silver per ton in 1976 to 126,000 tons grading 40 ounces per ton. A study on the feasibility of rehabilitating the Elsa mill cyanide plant will be completed in early 1978. If this study is positive, additional lower grade reserves will be developed which can be mined by surface methods.

There were no significant discoveries from the general Yukon exploration program. At the mine site, surface diamond drilling outlined a modest tonnage of good grade mineral on the Ruby vein. A 2,500-foot adit to explore this structure from underground has been started. Drifting on the No. 18 vein at the Keno Mine encountered a significant strike length of good grade ore. The full potential of this cannot be determined until a 1,200-foot drive is completed on the next level.

	As at December 31, 1977		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	2,470,000	1,195,989	48.4%
Production	Year ended December 31		
	1977	1976	
Tons ore milled	91,000	76,000	
Ounces silver produced	2,784,000	2,370,000	
Pounds lead produced	5,911,000	4,909,000	
Pounds zinc produced	451,000	622,000	
Financial			
Revenue from metal shipments	\$16,860,000	\$12,070,000	
Earnings before amortization and depreciation	2,805,000	2,130,000	
Net earnings	2,412,000	1,738,000	
Dividends paid — 60¢ per share	1,482,000		
— 70¢ per share		1,729,000	
Working capital	15,429,000	14,260,000	
Falconbridge interest* in			Per share of Falconbridge
Earnings after all charges	\$ 1,168,000		23¢
Dividends paid	718,000		14
Excess of earnings over dividends	\$ 450,000		9¢

Management

President and Managing Director	P. L. Munro
Mine Manager	G. S. Dundas

Wesfrob Mines Limited

There was a net loss of \$2,217,000 or 58 cents per share in 1977 compared with a net loss of \$347,000 in 1976. The increased loss was due to a reduced level of sales which was only partly offset by reduced operating costs.

Production of iron concentrates fell by 350,000 metric tons to 425,000 metric tons due in part to lower demand and in part to a planned phase-out of the sinter concentrate circuit. Reduced sales were attributable to a general slowdown in the Japanese steel industry and a long strike at the plant of Wesfrob's major U.S. customer. Full stockpiles of concentrates resulted in a shutdown of milling operations for the last two months of 1977.

The shutdown of the sinter feed concentrate circuit is coincident with the switch from open-pit mining to underground mining which has now been completed. Sinter feed which was produced from copper-free ore cannot be

economically produced from underground.

Although demand for both copper and iron concentrates was at a low level in

Japan at year end, sales prospects had improved sufficiently to permit the start-up of milling operations in mid-January, 1978.

	As at December 31, 1977		
	Outstanding	Held by Falconbridge	
Capitalization			
Common shares	3,832,994	3,832,994	100%
Production	Year ended December 31		
	1977	1976	
Iron concentrates — dry metric tons	425,000	775,000	
Copper concentrates — dry metric tons	6,000	12,000	
Copper in concentrate — pounds	2,706,000	5,139,000	
Financial			
Revenues from metals produced	\$ 8,298,000	\$12,056,000	
Earnings (loss) before amortization and depreciation	(1,507,000)	795,000	
Loss for the period	2,217,000	347,000	
Working capital	2,099,000	3,862,000	
Management			
President	P. L. Munro		
Mine Manager	C. L. Stafford		

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